



Electronic Data Deliverable (EDD)

Specification Manual

Version 1.05



U.S. Environmental Protection Agency
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EXECUTIVE SUMMARY

The purpose of this document is to provide detailed instructions for the reporting of environmental data generated by site characterization and investigation, installation of monitoring wells, and continued sampling at a site. It describes the Electronic Data Deliverable (EDD) - a combination of requirements and procedures for reporting data in electronic files after each phase of environmental investigation and throughout the site remediation and monitoring process. In this section, a summary is provided to allow managers to understand and guide the process. EPA's goal in defining an EDD is to expedite the transfer of data from the US EPA data providers. Other programs employing this approach have realized significant time and cost savings. The reason this approach is efficient is that it allows the US EPA data providers to fully understand EPA requirements and to communicate these requirements to its employees and contractors. All data can be compiled into the EDD throughout the Monitoring Program and therefore not add a separate data management task once all data have been collected.

The EDD is comprised of three distinct sets of files: Initial, Chemistry, and Geology. The Initial EDD consists of a CAD site drawing and two files containing data pertaining to the site and the sampling locations within a site. Most of the data submitted over the life of the project will be chemistry data. The Chemistry EDD files contain, field measurement, sample, test/result, and water level information. The Geology EDD files contain data regarding drilling activities, lithology, geologic sampling, well construction, down hole point data, and groundwater levels. Figures E-1 and E-2 show the EDD creation process for chemistry and geology respectively.

As shown in Figures E-1 and E-2, the process of creating the EDD files begins with software selection. Many software tools are capable of creating the EDD files including text editors, word processors, spreadsheets, and databases. However, spreadsheets and databases are designed to enter and manage data and are really the best tools to use. Microsoft® Access and Excel users can use the files contained on EPA Region 5's ED MAN website located at <http://www.epa.gov/region5superfund/edman>, that are already formatted and ready for data entry. Users of other software can convert the Excel or Access files or can define the EDD in the software of their choice. The production of the data tables will normally be a collaborative effort between laboratories and environmental contractors. The laboratories will typically produce the test/results tables while the contractors normally will produce all of the other tables.

After the software has been selected the data entry process begins. As shown in Figures E-1 and E-2, there are several decision points that exist to prevent redundant chemistry data reporting. For example, the data describing a site and the site contact should only be reported once. When creating the EDD ask, "Has the site ever been reported?" If the answer is yes, then no site file should be reported with the EDD. If the answer is no, then this must be the first EDD reported for that site and therefore the site file should be reported. A similar decision process is followed for locations. Locations only need to be reported once for any site. The only time a location is reported more than once is if the data have changed in some way. For example, the location may have been resurveyed. Sample, test, and results data constitute the bulk of EDD submissions. While it is rare, it is possible that tests and results are being reported for a sample(s) that was part of an earlier EDD sample file. In this case, the sample data should not be reported again. The Test/Results file should contain new data only. If data are being resubmitted, this must be

clearly documented in a cover letter to assure that outdated information is removed from the database. The final step before submitting the EDD files is to check them using the “Electronic Laboratory Data Checker” (ELDC) and the “Electronic Field Data Checker” (EFDC) software that is provided on the EDMAN website. This software will uncover errors in the EDD files that must be corrected prior to submission.

EPA Region 5 is providing a technical help line to assist the US EPA data providers in understanding and using the EDD. Both phone and email support are available. Please see Section 6 of this document for technical support information. Additionally, a US EPA Region 5 ED MAN website has been created. The address is <http://www.epa.gov/region5superfund/edman>. A copy of the EDD, valid values, ELDC, and EFDC will be available for download.

Figure E-1. Process flow diagram for the creation and checking of chemistry EDD files

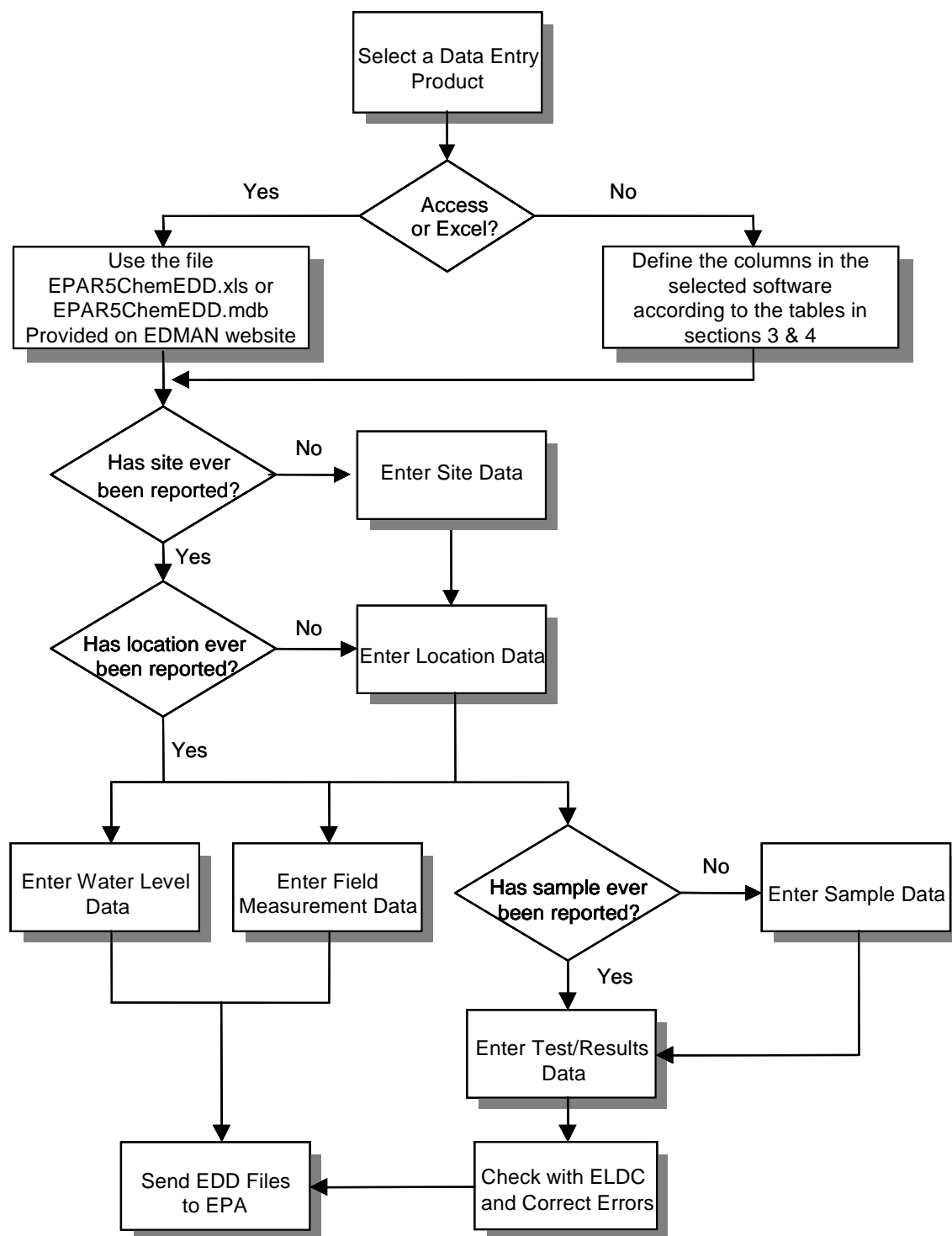
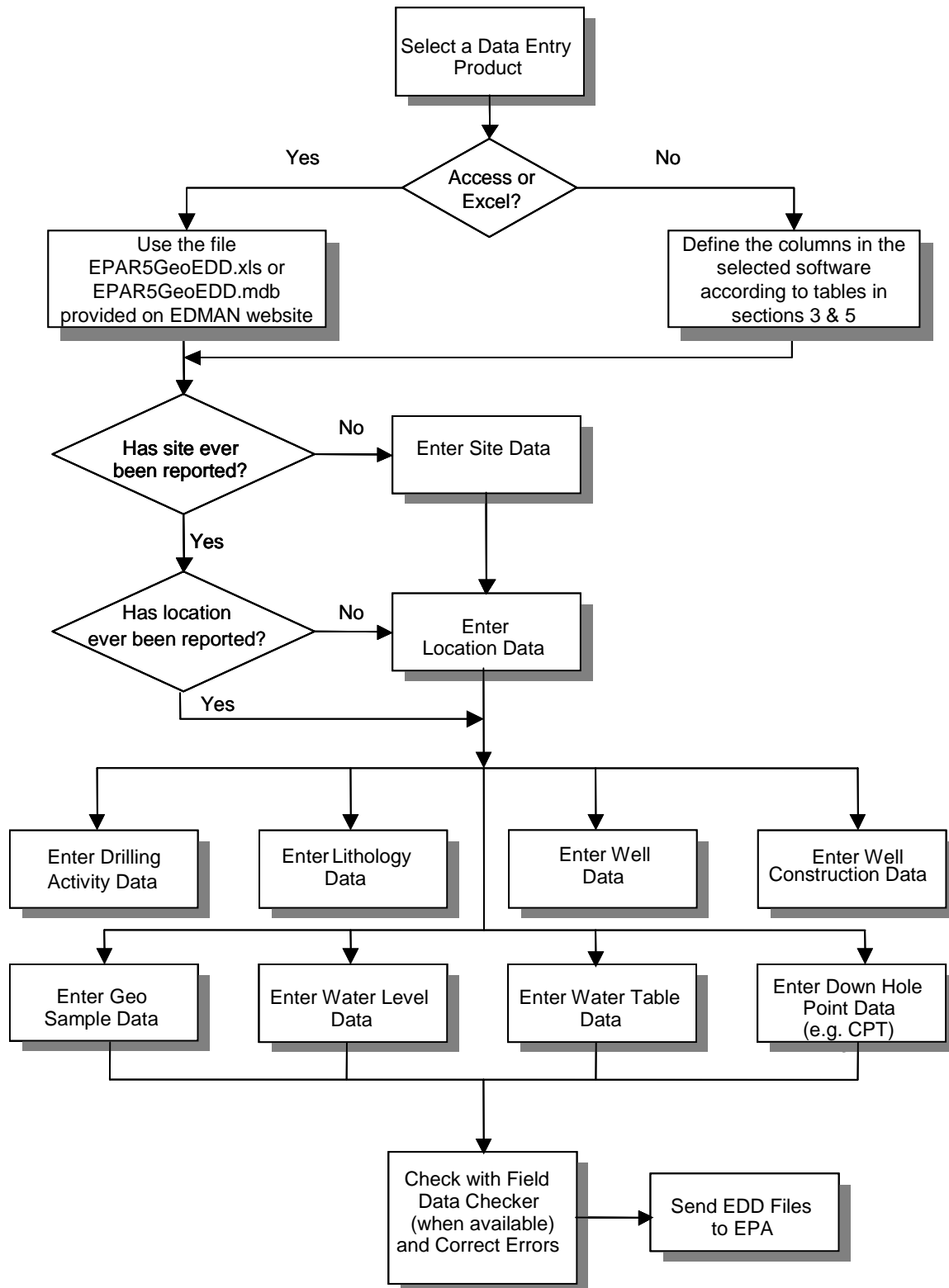


Figure E-2. Process flow diagram for the creation and checking of geology EDD files



1. INTRODUCTION TO THE ELECTRONIC DATA DELIVERABLE (EDD)

EPA Region 5 has developed the Environmental Data Management and Analysis Network (ED MAN) system to improve how environmental data from Superfund sites are acquired and managed. The ED MAN system provides multiple solutions for visually displaying site characteristics, measuring remediation progress, and confirming compliance status. The results of ED MAN will be to accelerate the review of environmental data submissions, improve service to the regulated community, and enhance the protection of the environment and the public. A vital element to the successful deployment of the ED MAN system is the electronic transfer of environmental data from the data providers to EPA in a standardized format. This EDD was developed to facilitate that transfer of data from data providers to the EPA.

The EDD is based on standard EQuIS[®] EDDs from EarthSoft Inc. The format is designed to be software-independent and easy to achieve. Any spreadsheet, database, or text editor can be used to create the EDD files. Examples of these applications include Access, FoxPro[®], Excel, Quattro[®], Lotus[®] 1-2-3[®], and Notepad.

Basically, the EDD is a series of file structures that is used to report data. For example, one file structure is used to report location data while another is used to report samples collected at a location. Multiple files are used to eliminate the need to report redundant data. For example, the data (coordinates, elevation, etc.) for a location are reported once in the location file. Many years of data may be reported for that location without reporting the location information again.

This document includes examples that illustrate how the EDD files should look after loading your data into them. In addition, several templates have been provided on the ED MAN website: <http://www.epa.gov/region5superfund/edman> for loading data into the EDD format and 2 software programs, Electronic Lab Data Checker (ELDC) and Electronic Field Data Checker (EFDC), are provided to check your EDD files before reporting.

The EDD is discussed in five separate sections:

- General reporting requirements are discussed in Section 2.
- The initial site and location file structures are defined in Section 3. These files must be submitted prior to, or in conjunction with, the first Chemistry or Geology EDD submittals.
- The Chemistry file structures are defined in Section 4. Chemistry data accounts for the majority of reportable data for this program.
- The Geology file structures are defined in Section 5.
- Finally, the appendix contains information on valid values and provides a listing of facility IDs for Superfund sites within EPA Region 5.

Each file must be reported exactly as defined in these sections. Any deviations will result in loading errors.

US EPA expects all fields with either “Required” or “If available” to be completed. The data type “Required” only refers to the need of the data in order to load data into the database. There may be data types of “If available” or “If applicable” where the data are not available or applicable. In these cases, include in the cover letter to the Region 5 RPM a description of any

fields that are not available or not applicable and the reason why. The data types of “Not wanted” should not be reported. These data types were only included so that other EPA regions or states could use the same EDD but have slightly different data type requirements.

2. REPORTING REQUIREMENTS FOR EDD

2.1 File Formats

With the exception of the electronic base map, all data from the US EPA data providers must be reported as text files using the following standard formats. Each data field must be separated by tabs (tab delimited) or comma delimited (CSV) optionally enclosed in double quotes ("). Data fields containing no information may be represented by two tabs (see example below on Null Format, Section 2.7) or two commas. Maximum length of text fields is indicated in parentheses within the EDD tables shown in Sections 3, 4, and 5. If the information is less than the maximum length, do not pad the record with spaces. Each record (line of information) must be terminated with a carriage return/line feed (created by pressing the enter key in a text editor). Guidance on creating these text files can be found in Section 2.14.

Chemistry and geology data are submitted from the US EPA Data providers in a series of files. Multiple files are used to eliminate the need to report redundant data. Details of the formats for the initial, chemistry, and geology files are presented in Sections 3, 4, and 5, respectively. Table 2-1, Table 2-2, and Table 2-3 provide an introduction to the files that comprise the Initial EDD, Chemical EDD, and Geology EDD, respectively.

An electronic base map must also be submitted along with the initial site and location files. The site base map must be a CAD file in DXF interchange format. Further details regarding the base map are given in Section 3.

Table 2-1. General information on the files that comprise the Initial EDD

File Type	File Name	Created By	Contents	What makes a row of data unique?	Dependence of other files on these data
Base Map	SiteName.DXF	US EPA data provider	Base Map of Site	Not Applicable	Not Applicable.
Site	SiteNameDate.EPAID.EPAR5SITE_v1.txt (or csv)	US EPA data provider	One time definition of site including US EPA data providers data contact information.	site_code	The location file cannot be loaded without properly referenced sites (site_code).
Location	SiteNameDate.EPAID.EPAR5LOC_v1.txt (or csv)	US EPA data provider's surveyor	One entry for each location on a study site. Contains elevation, coordinate and general data. Data should only be reported once for a location.	sys_loc_code	Samples, water levels, and field measurements can only be reported for locations that are defined in this file.

Table 2-2. General information on the files that comprise the Chemistry EDD

File Type	File Name	Created By	Contents	What makes a row of data unique?	Dependence of other files on these data
Chemistry Field Measurement	SiteNameDate.EPAID.EPAR5CFM_v1.txt (or csv)	US EPA data provider's field sampling team(s).	Measurements taken in field and not associated with a sample (e.g. air temperature).	table_name sys_code param_code measurement_date	None.
Chemistry Sample	SiteNameDate.EPAID.EPAR5SMP_v1.txt (or csv)	US EPA data provider's field sampling team(s).	One row for each sample collected at the study site.	sys_sample_code	Tests/results and batch data can only be reported for samples that are defined in this file.
Chemistry Test/Result	SiteNameDate.EPAID.EPAR5TRS_v1.txt (or csv)	US EPA data provider's testing lab(s)	One row for each analyte reported for a given sample and test. Additional rows can be added to report total and dissolved results and to report results for re-extracts.	sys_sample_code lab_anl_method_name total_or_dissolved test_type cas_rn analysis_date analysis_time	None.
Chemistry Test/Result with QC Data (use only if QC data are submitted)	SiteNameDate.EPAID.EPAR5TRSQC_v1.txt (or csv)	EPA contractor lab(s)	Test/Result file with additional fields for QC data.	sys_sample_code lab_anl_method_name total_or_dissolved test_type cas_rn analysis_date analysis_time	None

Table 2-2. General information on the files that comprise the Chemistry EDD (continued)

File Type	File Name	Created By	Contents	What makes a row of data unique?	Dependence of other files on these data
Batch (use only if QC data are required)	SiteNameDate. EPAID. EPAR5BAT_v1. txt (or csv)	EPA contractor lab(s)	Data that relates laboratory quality control samples with field samples that were processed and analyzed together.	sys_sample_code lab_anl_method_name test_batch_id	None.
Water Level	SiteNameDate. EPAID. EPAR5GWTR_v1. txt (or csv)	US EPA data provider's field sampling team(s)	Groundwater level data for monitoring wells	sys_loc_code sys_well_code measurement_date measurement_time sequence	None.

Table 2-3. General information on the files that comprise the Geology EDD

File Type	File Name	Created By	Contents	What makes a row of data unique?	Dependence of other files on these data
Drilling Activity	SiteNameDate. EPAID. EPAR5DRA_v1. txt (or csv)	US EPA data provider's Geologist	General Information regarding soil borings	sys_loc_code event	None.
Lithology	SiteNameDate. EPAID. EPAR5LTH_v1. txt (or csv)	US EPA data provider's Geologist	Lithology data for a borehole.	sys_loc_code start_depth	None.
Well	SiteNameDate. EPAID. EPAR5WEL_v1. txt (or csv)	US EPA data provider's Geologist	general information regarding wells	sys_loc_code sys_well_code	Well Construction and Water Level data can only be reported for wells that are defined in this file.

Table 2-3. General information on the files that comprise the Geology EDD (continued)

File Type	File Name	Created By	Contents	What makes a row of data unique?	Dependence of other files on these data
Well Construction	SiteNameDate. EPAID. EPAR5WSG_v1. txt (or csv)	US EPA data provider's Geologist	Well construction details recorded during well construction.	sys_loc_code sys_well_code segment_type start_depth material_type_code	None.
Geology Samples	SiteNameDate. EPAID. EPAR5GSMP_v1. txt (or csv)	US EPA data provider's Geologist	Results for geological, physical properties of samples.	geo_sample_code	None.
Water Level	SiteNameDate. EPAID. EPAR5GWTR_v1. txt (or csv)	US EPA data provider's field sampling team(s)	Groundwater level data for monitoring wells	sys_loc_code sys_well_code measurement_date measurement_time sequence	None.
Water Table	SiteNameDate. EPAID. EPAR5TBL_v1. txt (or csv)	US EPA data provider's Geologist	General Information pertaining to water table	sys_loc_code type	None.
Down Hole Point (CPT) Data	SiteNameDate. EPAID. EPAR5DHP_v1. txt (or csv)	US EPA data provider's Geologist	Results of all down hole logging such as CPT, resistivity, or other geophysical logs.	sys_loc_code depth param	None.

2.2 Initial Data Submittals

The initial data submittal consists of a site base map and two data files: Site File and Location File. Initial submittals provide information pertaining to the monitoring site and sampling locations within the site. The base map, Site file, and Location file need only be submitted once at the beginning of the project and resubmitted only when changes occur. Examples of changes that would require resubmittal include a change in the site contact or locations being resurveyed. New sampling locations established after the initial Location file submittal requires a new submittal with data only pertaining to the new locations. Instructions for submitting your EDDs to EPA are presented in Section 2.16 Submitting Your EDD to EPA.

2.3 Chemistry Data Submittals

There are two (2) types of Chemistry data submittals: Recurring and Correction.

- Recurring submittals are submitted on a cyclic basis and should include the files: Field Measurement, Chemistry Sample, Test/Results, Batch (if required), and Water Level. Data

should not be reported for laboratory generated quality control samples but should be reported for field duplicates, field blank, field spike, and trip blanks.

- Correction Reports are those files submitted to correct previously submitted reports. Laboratory retests should be reported as discussed in Section 2.10.

Instructions for submitting your EDDs to EPA are presented in Section 2.16 Submitting Your EDD to EPA.

2.4 Geology Data Submittals

Sites reporting data from monitoring wells installed more than one year prior to the date of data submittal are not required to submit any of the Geology tables. However, for all newly installed monitoring wells (i.e., wells installed within one year from the date of data submittal), and monitoring wells installed in the future, data providers must submit all applicable Geology files as detailed in Section 5. All applicable Geology files must also be submitted for data collected via direct push sampling (e.g., cone penetrometer).

There are two (2) types of Geology data submittals: Original and Correction.

- Original submittals consist of Geology data obtained during subsurface investigations at the site. The original Geology submittal should consist of all Geology files if the data are available. Unlike the Chemistry EDD submittals which are submitted on a cyclic basis, in most cases the Geology EDD is submitted only once. An additional Geology EDD is submitted only if new geology data is obtained after the original EDD was submitted to the EPA.
- Correction submittals are those files submitted to correct errors from previously submitted EDDs.

Instructions on submitting your EDDs to EPA are presented in Section 2.16 Submitting Your EDD to EPA.

2.5 File Naming Convention

Each file, except the base map file, must be named according to the following convention:

SiteNameDate.EPAIDCode.EDD File Format.txt (or .csv)

For example, the fourth quarter ground water sampling for 1999 at the ABC site, EPA Site XYZ123456789 would be reported in a file named ABC20000219.XYZ123456789.EPAR5SMP_v1.txt (or .csv). The first part of the file name is the site name and submission date in YYYYMMDD format. The second part of the file name is the 12 character alphanumeric EPA ID for the facility under investigation. EPA IDs for EPA Region 5 sites are provided in Appendix A.1. The third part of the file name refers to the EDD file format for the file being submitted. In the above example, the Chemistry sample file is being submitted, therefore the EDD File format is EPAR5SMP_v1. The last part is an extension that will be either “txt” if the file was saved as tab delimited or “csv” if saved as comma delimited. Table 2-4 describes the naming formats and submission type for the Initial, Chemistry and Geology files.

Table 2-4. EDD file name formats

File Type	File Contents	EDD File Name	Submission Type
Initial	Base Map	SiteName.DXF	Initial
Initial	Site	SiteNameDate.EPAIDCode.EPAR5SITE_v1.txt	Initial
Initial	Location	SiteNameDate.EPAIDCode.EPAR5LOC_v1.txt	Initial
Chemistry	Field Measurements	SiteNameDate.EPAIDCode.EPAR5CFM_v1.txt	Recurring
Chemistry	Sample	SiteNameDate.EPAIDCode.EPAR5SMP_v1.txt	Recurring
Chemistry	Test/Results	SiteNameDate.EPAIDCode.EPAR5TRS_v1.txt	Recurring
Chemistry	Test/Results QC	SiteNameDate.EPAIDCode.EPAR5TRSQC_v1.txt	Recurring
Chemistry	Batch	SiteNameDate.EPAIDCode.EPAR5BAT_v1.txt	Recurring
Chemistry	Water Level	SiteNameDate.EPAIDCode.EPAR5GWTR_v1.txt	Recurring
Geology	Drill Activity	SiteNameDate.EPAIDCode.EPAR5DRA_v1.txt	Original
Geology	Lithology	SiteNameDate.EPAIDCode.EPAR5LTH_v1.txt	Original
Geology	Well	SiteNameDate.EPAIDCode.EPAR5WEL_v1.txt	Original
Geology	Well Construction	SiteNameDate.EPAIDCode.EPAR5WSG_v1.txt	Original
Geology	Geology Samples	SiteNameDate.EPAIDCode.EPAR5GSMP_v1.txt	Original
Geology	Water Level	SiteNameDate.EPAIDCode.EPAR5GWTR_v1.txt	Original
Geology	Water Table	SiteNameDate.EPAIDCode.EPAR5TBL_v1.txt	Original
Geology	Down Hole Point (CPT) Data	SiteNameDate.EPAIDCode.EPAR5DHP_v1.txt	Original

2.6 Data Integrity Rules

Data submitters are responsible for running three types of integrity checks on their data.

- **Validity:** All codes used in a data set must be valid. Valid values for all coded fields are either provided in the description columns of the tables in Sections 3, 4, and 5 or, for more extensive lists, provided in the appendix. For example, the sample matrix is sample_matrix_code field of the sample file and must be reported using one of the values provided in Appendix A.13.
- **Row Uniqueness** must be verified using the guidance provided in Tables 2-1, 2-2, and 2-3. Row uniqueness is assured when no two rows in a file contain the same values for the columns listed under the heading “What makes a row of data unique?” In database terminology this is called a primary key. For example, no two rows in the sample file can contain the same sys_sample_code (commonly called a sample identifier). In addition, no two rows ever reported for a single site can contain the same sys_sample_code. The sys_sample_code must be unique for a site. This is also true of the sys_loc_code (code used to identify a location e.g. MW01) in the Location table. As previously mentioned, it is anticipated that the location(s) will be reported early in the program and that information about each location including water levels and samples collected will be reported throughout the program. In this case, a row for each sys_loc_code should only be reported in the Location file with the first data submission and not with subsequent submissions.

Figure 2-1. Relationships between chemistry file data structures.

Note that the field measurement table is not shown because its relationship depends on the type of measurement taken.
Shaded fields are required to have data

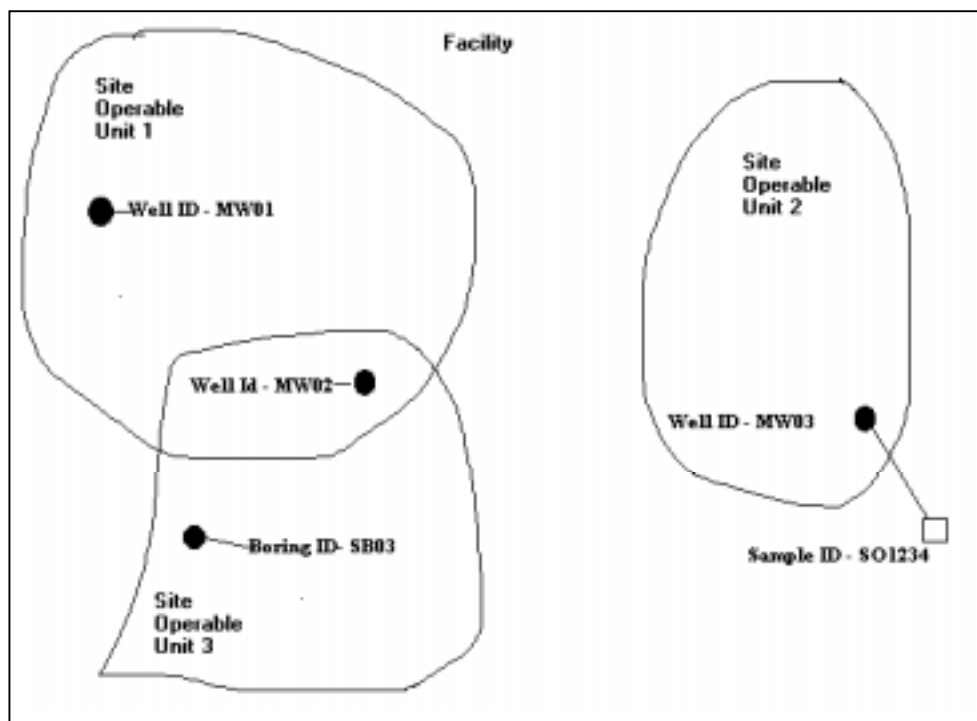


- Row Integrity:** The relationship between rows within the files of the EDD must be assured by enforcing the “referential integrity” rules discussed in Tables 2-1, 2-2, and 2-3 under the column labeled “Dependence of other files on these data.” For example, the values of sys_sample_code present in the Test/Result file must also be present in the Sample file. Logical relationships between the Chemistry files are shown in Figure 2-1 above. The line between files shows which column (or columns) is used to relate the two. The side with the “1” at the end of the line contains one row that is related to many rows on the other side. For example, there is one site row for many location rows because there are many locations at each of the study sites. Logical relationships between the Geology files are limited to the requirement that all sys_loc_codes be reported in the Location table.

2.7 Definition of a Facility, Site, and Location

It is important to understand how this EDD defines a facility, site, and location. Each facility (facility_id) will be identified with its EPA ID number (see Appendix A.1). The site (site_code) will be the operable unit identifier and there is at least one per facility. Each site can contain one or more locations that are distinct points defined by an X and Y Universal Transverse Mercator (UTM) coordinate. Examples of locations include soil borings, monitoring wells, and sampling locations. Each location identifier (sys_loc_code) must be unique for a facility. Figure 2-2 provides a diagram of the facility components.

Figure 2-2. Facility component definitions



Facility Id = EPA ID #

Site = Site Operable Unit = site_name

Must be unique at a Facility

Location= sample location, Well ID, Boring ID = sys_loc_code

Must be unique at a Facility

Data for a location may be reported for more than one Site Operable Unit.

2.8 Reporting Null Values

Many fields are optional in this EDD. When a field is not listed as required in Sections 3, 4, and 5, a null or blank may be appropriate. However, the blank value must still be surrounded by tabs or commas. In other words, the number of fields is always the same, whether or not the fields include data. Refer to Table 2-5 where the second of three fields shown is considered optional.

Table 2-5. Examples of how to report null values

Example	Comment
"data_one"→ "data_two"→ "data_three" "data_one","data_two","data_three"	O.K. All fields populated, one tab or comma between fields.
"data_one"→ → "data_three" "data_one",,"data_three"	O.K. Optional field not populated, 2 tabs or 2 commas between first and third field.
"data_one"→ "data_three" "data_one","data_three"	Not O.K. Optional field omitted, only 1 tab or comma between first and third field.

2.9 Valid Values

Valid values, also known as reference values or code lists, govern the contents of some fields in the database. In other words, some fields may contain only those values within a certain predetermined range or list of codes. A full list of columns that reference valid values is presented in Table 2-6. This list is also cross-referenced to the file structures presented in Sections 3, 4, and 5. If you require the addition of valid values to any of the tables listed below, contact the data management staff using the contact information provided in the technical support section.

Table 2-6. Cross-reference between the valid value tables in appendix and the EDD files

Valid Value Table	Appendix Sect.	Column	EDD File
Reference point	7.2	Reference_point	Location
Horizontal collection method	7.3	horz_collection_method_code	Location
Horizontal accuracy unit	7.4	horz_accuracy_unit	Location
Horizontal datum	7.5	horz_datum_code	Location
Elevation collection method	7.6	elev_collect_method_code	Location
Elevation datum	7.7	elev_datum_code	Location
Source_code	7.8	source_scale	Location
Loc_type	7.9	loc_type	Location
Analyte	7.10	cas_rn	Test/Results
Lab_anl_method_name	7.11	lab_anl_method_name	Test/ Results
Lab	7.12	lab_name_code	Test/Results
Matrix	7.13	sample_matrix_code, lab_matrix_code	Chemistry Sample, Test/Results
Std_prep_method	7.14	lab_prep_meth	Test/Results
Qualifier	7.15	lab_qualifiers	Test/Results
Result_type	7.16	result_type_code	Test/Results

**Table 2-6. Cross-reference between the valid value tables in appendix
and the EDD files (continued)**

Valid Value Table	Appendix Sect.	Column	EDD File
Sample_type	7.17	sample_type_code	Chemistry Sample
Unit	7.18	depth_unit (Sample), result_unit (Result), subsample_amount_unit (Test)	Chemistry Sample, Test/Result, Well Construction, Geology Samples, Water Level
Geology soil materials	7.19	material	Geology Lithology
Well construction and materials	7.20	segment_type, material	Well Construction

2.10 Reporting Re-tests

For Initial tests, all analytes should be reported. For retests only reportable chemicals should be reported. The initial test will have reportable_result set to "No" for all chemicals that are reported in retests. Table 2.7 provides an example of reporting re-tests.

Table 2-7. Example of reporting re-tests

Test Type	Chem Name	Cas rn	Result Value	Detect Flag	Lab Qualifiers	Reportable Result	Result Comment
Initial	Benzene	71-43-2	1000	Y	E	No	too concentrated to quantitate
Initial	Toluene	108-88-3	5	N	U	Yes	not detected
Initial	Xylenes	1330-20-7	5	N	U	Yes	not detected
dilution1	Benzene	71-43-2	780	Y		Yes	quantitated

2.11 Reporting Non-detects

Non-detects must be reported as shown in the example below. Each non-detect row must have the detect_flag = N, a reporting_detection_limit, and null in the result value field. Table 2.8 presents an example of reporting non-detects.

Table 2-8. Example of reporting non-detects

Cas rn	Result Value	Detect Flag	Reporting Detection Limit	Detection Limit Unit	Result_comment	Laboratory_qualifiers
108-88-3	.15	Y	.005	ug/ml		U
108-88-3		N	.005	ug/ml	not detected	U

2.12 Reporting Tentatively Identified Compounds

Tentatively Identified Compounds (TICs) should be reported where available. The naming of TICs should be applied in a cascade fashion. The TIC should be identified to analyte name if possible. If this is not possible, then the TIC should be identified to class. As a final naming choice, the TIC should be identified as Unknown. For the purpose of this EDD, the valid values

list assumes the laboratory will report up to 10 TICs. Only the 10 most concentrated TICs should be reported. Table 2-9 shows examples of the nomenclature for TICs. As an example, if a sample has three Unknown Hydrocarbons, then the TICs are labeled UnkHydrocarb1, UnkHydrocarb2, and UnkHydrocarb3. TIC names are to be reported in the cas_rn field, Pos #31, of the Test/Result file (Tables 4-3 and Table 4-4). In addition, the result_type_code, Pos #35 in the Test/Result file should have “TIC” for all TIC records.

Table 2-9. Example nomenclature for TIC reporting

TIC Name	Number for TIC	Reported Name in cas_rn
Unknown	1-10	Unknown1 – Unknown10
Unknown Hydrocarbon	1-10	UnkHydrocarb1 - UnkHydrocarb10
Unknown PAHs	1-10	UnkPAH1 - UnkPAH10
Unknown Aromatics	1-10	UnkAromatic1 - UnkAromatic10
Unknown VOA	1-10	UnkVOA1 - UnkVOA10
Unknown SV	1-10	UnkSV1 - UnkSV10

2.13 Data Types

The table below describes the data types used in the chemistry and geology file descriptions. In addition to the types listed below, certain fields have single and double data types. The single data type stores number from –3.402823E38 to –1.401298E–45 for negative values and from 1.401298E–45 to 3.402823E38 for positive values, with decimal precision of up to 7. The double data type stores numbers from –1.79769313486231E308 to –4.94065645841247E–324 for negative values and from 1.79769313486231E308 to 4.94065645841247E–324 for positive values, with decimal precision of up to 15.

Table 2-10. Data type descriptions

Type	Description	Decimal Precision	Comments
Integer	Stores numbers from –32,768 to 32,767 (no fractions).	none	
'Y' or 'N'	Boolean field used to indicate yes or no to a question. Enter either Y or N.	NA	
Time	Time in 24-hr (military) HH:MM format.	NA	Text(5) is standard length for time.
Date	Date format is MM/DD/YYYY.	NA	
Text	Stores characters and numbers.	NA	Length restrictions are indicated in parenthesis.

2.14 Data Entry Tools Provided to Create the EDD Files

The files can be produced using any software with the capability to create text files. These files are especially easy to create using spreadsheet or database software packages. However, if these are unavailable, the files can be created using a word processor or text editor. Table 2-11 provides instructions for creating tab delimited text files from some of the more popular software

packages. In the near future EPA will publish a field data checker that can be used to validate these text files.

Table 2-11. Instructions for producing tab delimited text files from some popular software packages

Package	Type	Instructions
Access 97	Database	<ol style="list-style-type: none"> 1. Create tables using file structures in Sections 3 and 4 2. After data are entered, close table. 3. Click on table name (under table tab) and then select "File," "Save As" from the top menu. Save to an external file or database. Change "Save as Type" to a text file. Change the file extension from "txt" to "tab." Press OK. This will start the export wizard. 4. In the export wizard, select "Delimited," then press the "Next" button. Select "Tab" as the delimiter type and " " as the text qualifier. Press the "Next" button. Select a destination and name for the file. Press the "Finish" button.
Excel 97	Spreadsheet	<ol style="list-style-type: none"> 1. Select "File," "Save As" from the top menu. Change "Save as Type" to a "Text (Tab Delimited)" file. Press the "Save" button.
Quattro® v8	Spreadsheet	<ol style="list-style-type: none"> 1. Select "File," "Save As" from the top menu. Change the "File Type" to "ASCII Text (Tab Delimited)." Press the "Save Button."
Word 97	Word Processor	<p>Warning: A word processor is not the best tool for the job! A large paper size will have to be selected to prevent wrapping for most files.</p> <ol style="list-style-type: none"> 1. Enter data into a table in Word. Any text entered must be contained within double quotes. 2. Select "Table," "Select Table" from the top menu. When the table is highlighted, select "Table," "Convert to Text," "Separate Text with Tabs." 3. Select "File," "Save As" from the top menu. Change "Save as Type" to "MS DOS Text (*.txt).
Lotus 1-2-3	Spreadsheet	<ol style="list-style-type: none"> 1. Select "File," "Save As" from the top menu. Change "Save as Type" to a "Comma Separated Value (CSV)" file. Provide file name. Press the "Save" button.

Several files are included on EPA's EDMAN website to assist in creating the chemistry and geology EDDs.

- Two Microsoft Excel Workbooks files, EPAR5ChemEDD.xls and EPAR5GeoEDD.xls, provide electronic templates for the EDD files. To create an EDD, simply enter your data into the worksheets provided and then follow the instructions to create a tab delimited text file.
- Two Microsoft Access database files, EPAR5ChemEDD.mdb and EPAR5GeoEDD.mdb also provide electronic templates for the EDD files. To create an EDD, simply enter your data into the database files provided and then follow the instructions to create a tab delimited text file.

2.15 Using the Electronic Data Checkers to Validate EDDs

The Electronic Laboratory Data Checker (ELDC) and Electronic Field Data Checker (EFDC) are used to check the EDD files prior to submittal. The ELDC is used to check the following four Chemistry files: chemistry sample, chemistry test/results, chemistry test/result with QC data, and batch. The EFDC is used to check the remaining EDD files.

The ELDC and EFDC installation files are provided on the EDMAN website as EPAR5_ELDCSetup.EXE and EPAR5_EFDCSetup.EXE. To install ELDC and EFDC, simply double-click on the files and follow the installation instructions. Once ELDC and EFDC are installed on a workstation, they may be used to check the EDD files prior to reporting to EPA. The EDMAN website is <http://www.epa.gov/region5superfund/edman>.

When the ELDC starts, the user needs to select the EDD file format associated with the type of file that will be checked (i.e., EPAR5SMP_v1 for the chemistry sample file). Table 2-12 shows the correlation between ELDC “EDD file format” and the file types used in the EDD. Next the actual file is selected by using a standard browse function. Finally, the “Check” button is clicked to begin the checking process.

Table 2-12. Correlation between ELDC EDD file formats and chemistry EDD file types

ELDC EDD File Format	Chemistry EDD File Type
EPAR5SMP_v1	Chemistry Sample
EPAR5TRS_v1	Chemistry Test/Result
EPAR5TRSQC_v1	Chemistry Test/Result with QC Data
EPAR5BAT_v1	Batch

When the EFDC starts, the user needs to select the EDD file format associated with the type of file that will be checked (i.e. EPARSITE_v1 for the site file). Table 2-13 shows the correlation between EFDC “EDD file format” and the file types used in the EDD. Next the actual file is selected by using a standard browse function. Finally, the “Check” button is clicked to begin the checking process.

Table 2-13. Correlation between EFDC EDD file formats and EDD file types

EFDC EDD File Format	EDD File Type
EPAR5SITE_v1	Site
EPAR5LOC_v1	Location
EPAR5GWTR_v1	Water Level
EPAR5DRA_v1	Drilling Activity
EPAR5LTH_v1	Lithology
EPAR5WEL_v1	Well
EPAR5WSG_v1	Well Construction
EPAR5GSMP_v1	Geology Samples
EPAR5TBL_v1	Water Table
EPAR5DHP_v1	Down Hole Point Data

If there are errors or warnings an error log is created that can be viewed in detail or summary mode to gain an understanding of the problem. After the errors are corrected, the ELDC and EFDC can be re-run to assure that no errors remain. If error messages remain because new valid value codes are required, the files should be considered clean and reported to EPA with the new codes clearly explained in the cover letter.

2.16 Submitting Your EDD to the EPA

Once the EDD files are complete and ready to submit, the following steps should be taken to assure a streamlined process. Each EDD must be accompanied by a cover letter (please include as electronic text file on diskette as well) that specifies the study site, contact for technical questions, file names, any exceptions to the EDD format, and a clear notification if the EDD contains previously submitted data. If data are being resubmitted, please indicate the reason for resubmission and provide guidance on how to handle the original data (e.g., delete it from the database). Files should not be compressed. Completed EDDs should be sent on a 3.5" IBM-compatible diskette or 100 MB/250MB Zip[®] Disk that is clearly labeled with the project code and date of transfer to:

Site RPM

US Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604

In lieu of disk copy, email submissions may be arranged with your RPM.

2.17 Example of a Typical Initial, Chemistry and Geology EDD Deliverable

Examples of Initial, Chemistry and Geology EDD files populated with the first few rows of a typical data set are presented in Figures 2-3, 2-4, 2-5, and 2-6. In order to fit the examples on one page, not all of the fields (i.e., columns) were included for certain files (e.g., Site, Location, Chemistry Sample). *Additional Fields* is denoted where all the fields are not included. It should be noted that all fields are required when submitting EDD files, regardless of whether or not the field is populated (see Section 2.9). The special cases discussed in previous sections are illustrated here together with standard examples.

Figure 2-3. Example Initial EDD ready for conversion to text file

Site File:

site_code	facility_id	site_name	site_task_code	site_desc1	site_desc2	contact_name	address1	<i>Additional Fields</i>	email_address
Example	FAC123456723	Example Site				John Smith	23 Main Street		abc@abd.com

Location File:

sys_loc_code	sys_well_code	x-coord	y-coord	surf_elev	elev_unit	coord_sys_desc	observation_date	alt_x_coord	alt_y_coord	coord_type-code	identifier	<i>Additional Fields</i>	comment
MW01	MW01	414456.78	4424543.21	120.2	ft	UTM Zone 17	02/21/1999	-82.00231	39.9612	Lat Long	1		
SB-01	NONE	414709.23	4424304.12	126.3	ft	UTM Zone 17	02/23/1999	-82.00531	39.35794	Lat Long	1		
MW03	MW03a	414601.23	4424700.33	130.1	ft	UTM Zone 17	02/22/1999	-82.01023	39.9701	Lat Long	1		
MW03	MW03b	414601.23	4424700.33	130.1	ft	UTM Zone 17	02/22/1999	-82.01023	39.9701	Lat Long	1		

Notes: SB-01 has no well therefore "NONE" is entered in sys_well_code.
MW03a and MW03b are multiple wells within same boring.

Location File of Resurveyed Location

The following table shows the fields requiring data when submitting a new location file resulting from a resurvey of the datum elevation at one location. Only the sys_loc_code, sys_well_code, and the datum elevation fields are populated. All other fields in the location file are left null. In this example, the top of the well casing (TOC) was resurveyed. The elevation was found to be different from the originally reported elevation. The TOC was also used as the datum for the well. Therefore, a new location file needs to be submitted where only the fields shown below are populated with the new data from the resurvey. All other fields need to be null.

sys_loc_code	sys_well_code	<i>Additional Fields</i>	top_casing_elev	Datum_value	datum_unit	step_or_linear	datum_collection_method_code	datum_desc	datum_start_date
MW01	MW01		119.2	119.2	Ft	Linear	A1	top of casing	04/12/99

Figure 2-4. Example Chemistry EDD ready for conversion to text file

Chemistry Field Measurements File:

table_name	sys_code	param_code	measurement_date	measurement_time	param_value	param_unit	measurement_method	param_value_background	remark	Additional Fields	calibration_date
Site	Example	Temp	07/12/2000	13:30	29	deg c	Thermometer		Ambient air temp		
Location	MW01	pH	07/12/2000	14:20	7.2	Ph units	pH probe		pH of groundwater		

Sample File:

sys_sample_code	sample_name	sample_matrix_code	sample_type_code	sample_source	parent_sample_code	sample_delivery_group	sample_date	sample_time	sys_loc_code	Additional Fields	comment
MW01040198		WG	N	Field			04/01/1998		MW01		
MW02040198		WG	N	Field			04/01/1998		MW02		

Test/Result File:

sys_sample_code	lab_anl_method_name	Additional Fields	total_or_dissolved	column_number	test_type	lab_matrix_code	analysis_location	basis	Additional Fields	dilution_factor	lab_name_code	qc_level	lab_sample_id	Additional Fields
MW02040198	SW8240		T		Initial	WG	LB	Wet		1.0	ABC	quant	LAB01	
MW02040198	SW8240		T		Initial	WG	LB	Wet		1.0	ABC	quant	LAB02	
MW02040198	SW8240		T		Reanalysis	WG	LB	Wet		10.0	ABC	quant	LAB02R	

Test/Result file (continued):

cas_rn	chemical_name	result_value	result_error_delta	result_type_code	reportable_result	detect_flag	lab_qualifiers	organic_yn	reporting_detection_limit	quantitation_limit	result_units	Additional Fields	result_comment
71-43-2	BENZENE	12		TRG	Yes	Y		Y	10		ug/ml		
108-88-3	TOLUENE			TRG	Yes	N		Y	10		ug/ml		
1330-20-7	XYLENES			TRG	Yes	N		Y	10		ug/ml		

Water Level File:

sys_loc_code	sys_well_code	measurement_date	measurement_time	historical_ref_elev	water_level_depth	water_level_elev	corrected_elev	Additional Fields	remark
MW01	MW01	05/10/1999	13:10		31.1	89.1			
MW02	MW02	05/10/1999	13:45		34.1	89.0			

Figure 2-5. Examples of QC data fields within Chemistry EDD

QC fields in a normal field sample (i.e., sample_type_code = N, TB, etc.)

The following table shows some of the fields in the test/result file for a normal field sample. Notice that all QC fields are blank.

cas_rn	result_value	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5	1.56								
94-75-7	3.17								
94-82-6	2.31								

QC fields in a normal field sample with surrogates (i.e., sample_type_code = N, TB, etc.)

The following table shows some of the fields in the test/result file for a normal field sample. Notice that QC fields are blank except on surrogate rows. Many users will need only the recovery field data; the spike added and spike measured fields will not be needed in most situations.

cas_rn	result_value	result_unit	result_type_code	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery
93-76-5	1.56	mg/l	TRG				
94-75-7	3.17	mg/l	TRG				
PHEN2F		mg/l	SUR		12.5	12.9	103

QC fields in a laboratory method blank sample (i.e., sample_type_code = LB)

The following table shows some of the fields in the test/result file for a laboratory method blank sample. Notice that all QC fields are blank.

cas_rn	result_value	lab_qualifier	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5		U								
94-75-7		U								
94-82-6	0.01									

QC fields in a matrix spike (i.e., sample_type_code = MS)

The following table shows some of the fields in the test/result file for a matrix spike sample. Notice that all "dup" QC fields are blank, and that the result_value field is not needed. Also, the qc_rpd field would be blank for these rows. Many users will need only the calculated recovery field (qc_spike_recovery).

cas_rn	result_value	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	Qc_rpd	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5		1.56	4.18	5.36	90.9					
94-75-7		3.17	4.18	7.15	95.2					
94-82-6		2.31	4.22	5.66	79.3					

Figure 2-5. Examples of QC data fields within Chemistry EDD (continued)

QC fields in a matrix spike duplicate (i.e., sample_type_code = SD)

The following table shows some of the fields in the test/result file for a matrix spike duplicate sample. Notice that all "dup" QC fields are completed, and that the result_value field is not needed. Also, the qc_rpd field would be completed for these rows. Many users will need only the calculated recovery field (qc_dup_spike_recovery).

cas_rn	result_value	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	Qc_rpd	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5						10	1.56	4.23	5.70	97.8
94-75-7						12	3.17	4.23	7.62	105
94-82-6						15	2.31	4.13	5.33	73.1

QC fields in a matrix spike/matrix spike duplicate (i.e., sample_type_code = MSD)

The following table shows some of the fields in the test/result file for a matrix spike/matrix spike duplicate considered as single sample (they can be reported this way, or as two separate samples as shown above). Notice that all QC fields are completed, and that the result_value field is not needed. Also, the qc_rpd field would be completed for these rows. Many users will need only the calculated recovery fields (qc_spike_recovery and qc_dup_spike_recovery).

cas_rn	result_value	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	Qc_rpd	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5		1.56	4.18	5.36	90.9	7	1.56	4.23	5.70	97.8
94-75-7		3.17	4.18	7.15	95.2	10	3.17	4.23	7.62	105
94-82-6		2.31	4.22	5.66	79.3	8	2.31	4.13	5.33	73.1

QC fields in a LCS (i.e., laboratory control sample, blank spike, sample_type_code = BS)

The following table shows some of the fields in the test/result file for a LCS sample. The qc_rpd field would be blank for these rows. Many users will need only the calculated recovery field (qc_spike_recovery). LCS duplicate samples (i.e., sample_type_code = BD) and LCS/LCSD samples (i.e., sample_type_code = BSD) follow the patterns similar to the SD and MSD samples described above.

cas_rn	result_value	qc_original_conc	qc_spike_added	qc_spike_measured	qc_spike_recovery	qc_dup_original_conc	qc_dup_spike_added	qc_dup_spike_measured	qc_dup_spike_recovery
93-76-5			5.00	5.26	105				
94-75-7			1.00	1.02	102				
94-82-6			12.5	12.9	103				

Figure 2-6. Example Geology EDD ready for conversion to text file

Drill Activity File:

Drill Activity Data						Additional Fields	purpose
sys_loc_code	drill_event	start_depth	end_depth	drill_date	diameter		Advanced well additional 40 feet to reach lower aquifer
W-4A	1a	40	80	07/12/1999	8		Advanced well 55 feet to reach bedrock.
W-6B	2c	45	110	07/14/1999	8		

Lithology File:

sys_loc_code	start_depth	material_type	geo_unit_1	Additional Fields	Remark_1	Additional Fields	odor
W-1A	0	CL	Glacial		grayish brown clay, trace fine sand, med strength, med plastic, rapid dilatancy ,some brick fragments		
W-1A	10	SW	Outwash		med dense, 50% fine to coarse brown sand, 30% gravel, dry, trace clay		
W-1A	23	SP	Outwash		dense, 70% coarse brown sand, 20% gravel, poorly graded, rounded, moist		
W-2A	0	ML	Alluvial		Dark brown silt with little fine sand, low strength, nonplastic, rapid dilatancy		

Well File:

sys_loc_code		sys_well_code		Additional Fields	top_casing_elev	datum_value	datum_unit	datum_desc	Additional Fields	geologic_unit_code	remark
W-1A		W-1A			122.0	122.0	ft	top of casing of well		outwash	
W-2A		W-2A			122.3	122.3	ft	top of casing of well		alluvial	

Well Construction File

Well Construction Log

sys_loc_code	sys_well_code	segment_type	material_type_code	start_depth	end_depth	depth_unit	inside_diameter	Additional Fields	remark
W-1A	W-1A	surface plug	concrete	0	1.5	ft	4.5		
W-1A	W-1A	annular backfill	neat cement grout	1.5	8	ft	2.375		
W-1A	W-1A	annular Seal	Bentonite pellets	8	8	ft	2.375		
W-1A	W-1A	Filter Pack	sand pack	8	23.1	ft	2.375		
W-1A	W-1A	Protective Casing	steel	-2.2	3.2	ft	4		
W-1A	W-1A	casing	stainless steel 304	-2.1	24	ft	2		
W-1A	W-1A	screen	stainless steel 304	24	29	ft	2		
W-2A	W-2B	protective casing	steel	-2.0	3.0	ft	2		
W-2A	W-2B	surface plug	concrete	0	1.5	ft	4.5		
W-2A	W-2B	annular backfill	neat cement grout	1.5	10	ft	2.375		

Figure 2-6. Example Geology EDD for new monitoring wells or direct push samples ready for conversion to text file (continued)

Geology Sample File:

sys_loc_code	geo_sample_code	sample_name	sample_top	sample_bottom	sample_date	Additional Fields	sample_method	material_type	Additional Fields	organic_carbon_units
W-1A	ABCD-1		4	6	04/23/1999		split spoon	SW		
W-1A	ABCD-2		14	16	04/23/1999		split spoon	SW		
W-2A	DEFG-1		5	7	04/24/1999		split spoon	SP		

Water Level File:

sys_loc_code	sys_well_code	measurement_date	measurement_time	historical_ref_elev	water_level_depth	water_level_elev	corrected_elev	Additional Fields	remark
MW01	MW01	05/10/1999	13:10		31.1	89.1			
MW02	MW02	05/10/1999	13:45		34.1	89.0			

Water Table File:

sys_loc_code	Type	sequence	depth	flowing_yn	measurement_method	capped_pressure	capped_pressure_unit	Additional Fields	temperature_unit
MW01	Unconfined	stable	21.2	y	electric sensor				
MW02	Unconfined	stable	21.0	y	electric sensor				

Geology Down Hole Point File:

sys_loc_code	depth	param	param_value
MW01	10.8	Tip Stress	612
MW01	11.2	Tip Stress	624
MW01	10.8	Sleeve Stress	6.1
MW01	11.2	Sleeve stress	5.8
MW02	9.5	Resistivity	510
MW02	10.1	Resistivity	521
MW02	11.0	Resistivity	489

3. FORMATS FOR INITIAL FILES

This section contains information regarding the base map and the two tables that define the file structures for the initial EDD. These files are initial files that need to be submitted to EPA prior to, or in conjunction with, the first Chemistry EDD or Geology EDD submission. These files need only be submitted once. The only time a site or location file would be submitted more than once is if the data had changed in some way (e.g., contact name, location resurveyed) or if the site contains a new sampling location not previously submitted (e.g., new monitoring well installation). The columns marked “Required” must be reported for each row in the file. If they are not reported, the file will not load. Columns marked “If available” should also be reported.

3.1 Site Base Maps

Site base maps must be electronic CAD files in a DXF interchange format. The maps are to include all well locations, waste management units, landfills, buildings, and roads. Do not include any groundwater contours, contaminant contours, or other temporal type information. If the CAD file is available in real world locational coordinates, provide them along with a brief text description of the type of projection and datum used (UTM NAD 83 preferred). Also include text descriptions of the units and scale of the base map. The site base map file must be named according to the following convention:

SiteName.DXF

3.2 Site

Submitted once to define a site and provide the name, email address, and fax number of the main data contact. This file is required to be submitted as part of the initial EDD submittal. Each Site file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5SITE_v1.txt (or .csv)

Table 3-1. Site file data structure

Pos#	Column Name	Data Type	Required	Description
1	site_code	Text(3)	Required	Unique code for Operable Unit (site/area). Typically the code is “01” unless there is a second or third operable unit at facility. Code of “02” and “03” should be used for second and third unit, respectively. Contact the EPA RPM if unsure of proper code,.
2	facility_id	Text(20)	If available	EPA ID Code - Facility identifier code (see Appendix 7.1).
3	site_name	Text(30)	Required	Name of site.
4	site_task_code	Text(10)	If available	Code used to identify the task under which the site or area is investigated. This field is here for reference only. Field samples are formally associated with task codes.
5	site_desc1	Text(70)	If available	Site description, part one.
6	site_desc2	Text(70)	If available	Site description, part two.
7	contact_name	Text(50)	Required	Site contact name.
8	address1	Text(30)	Required	Site address, part one.
9	address2	Text(30)	If available	Site address, part two.

Table 3-1. Site file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
10	City	Text(30)	Required	Site city.
11	State	Text(2)	Required	Site state.
12	Zipcode	Text(10)	Required	Site zip code.
13	phone_number	Text(30)	Required	Site contact phone number.
14	alt_phone_number	Text(30)	If available	Alternative site phone number.
15	fax_number	Text(15)	If available	Site contact fax number.
16	email_address	Text(30)	Required	Site contact email address.

3.3 Location

Submitted to define the sampling locations for a site. This file is required to be submitted as part of the initial EDD submittal. Each row contains the definition of a unique sampling location. In the case of multiple wells located in one borehole, each well in the borehole will have the same sampling location identifier (sys_loc_code) and will be differentiated by a unique well identifier (sys_well_code), such as MW-01a, MW-01b, etc. An example of this case is presented in the Location File of Figure 2-3.

Each sampling location should only be reported once for a site. The only time data for a previously reported location is to be resubmitted is if a change occurs at the location such as the location being resurveyed. If the location is resurveyed and changes result to the coordinates and datum elevations, a new location file should be submitted with the location identifier, well identifier (if location is a well), and only the new updated data, all other fields must be null. The changes must be documented in an EDD submittal cover letter and the RPM should be notified. An example of a completed location file resulting from a resurvey is presented in Figure 2-3.

This file data structure incorporates the requirements of EPA's Locational Data Management Policy (LDP). LDP requires geographic coordinates and associated method, accuracy, and description codes for all environmental measurements collected by EPA employees, contractors, and grantees. A key premise of this policy is that secondary use of these data in geographic information systems (GIS) and statistical mapping programs are significant to the overall mission of the Agency. To facilitate the integration of data, EPA has established the LDP to standardize the coding of geologic coordinates and associated attributes. As a result, coordinates for each location must be reported in both universal transverse mercator (UTM) and in latitude and longitude with associated attributes.

Note: If the location being submitted is a monitoring well that has been installed more than one year from the EDD submittal date, the location table fields from Pos# 41, depth_to_top_of_screen, through Pos # 49, datum_start_date, are required to be populated. These fields are required to obtain the vertical location from which the groundwater sample was taken and the vertical location of the water table. If the location is not a well or is a well that has been installed within the last year, fields from Pos #41 through Pos #49 should be left null. These fields are a subset of the Geology files and for wells installed within the past year, will be captured within the Geology EDD files.

Each Location file must be named according to the following convention:
 SiteNameDate.EPAIDCode.EPAR5LOC_v1.txt (or .csv)

Table 3-2. Location file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text(20)	Required	Location identifier of sample collection, soil boring, or well installation. Examples of possible sys_loc_code are MW-01, A-1, SB6, etc. See Section 2.6 “Definition of a Facility, Site, and Location” for additional information.
2	sys_well_code	Text(20)	Required	Code used to differentiate between multiple wells in one boring. Code is the same as that used for sys_loc_code if single well, e.g., if sys_loc_code is MW-01 then sys_well_code is MW-01. Enter “NONE” if there is no well.
3	x_coord	Number w/decimal precision up to 15	Required	Sampling location numeric x UTM NAD83 coordinate in meters.
4	y_coord	Number w/decimal precision up to 15	Required	Sampling location numeric y UTM NAD83 coordinate in meters.
5	surf_elev	Number w/decimal precision up to 15	Required	Sampling location surface elevation in feet.
6	elev_unit	Text(15)	Required	Unit of measurement for elevations. Units must be in feet.
7	coord_sys_desc	Text(70)	Required	Sampling location coordinate system description. Must be UTM followed by appropriate zone number, i.e., UTM zone xx.
8	observation_date	Date	Required	Date observation or site survey was made.
9	alt_x_coord	Text(20)	Required	Longitude of sampling location in decimal degrees.
10	alt_y_coord	Text(20)	Required	Latitude of sampling location in decimal degrees.
11	coord_type_code	Text(20)	Required	Use “Lat Long.” Code for the coordinate type used for alt_x and alt_y.
12	identifier	Text(20)	Required	For this EDD use “1.” This field is a text identifier that facilitates unique representation of the coordinate system.
13	horz_collect_method_code	Text(2)	Required	Use codes in Appendix 7.3 horizontal collection method. Method used to determine the latitude/longitude.

Table 3-2. Location file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
14	horz_accuracy_value	Text(20)	Required	Accuracy range (+/-) of the latitude and longitude. Only the least accurate measurement should be reported, regardless if it is for latitude or longitude.
15	horz_accuracy_unit	Text(15)	Required	Use values in horizontal accuracy units valid value table, Appendix 7.4. Unit of the horizontal accuracy value.
16	horz_datum_code	Text(1)	Required	Use codes in horizontal datum valid value table, Appendix 7.5. Reference datum of the latitude and longitude.
17	elev_collect_method_code	Text(2)	Required	Use codes in elevation collection method valid value table, Appendix 7.6. Method used to determine the ground elevation of the sampling location.
18	elev_accuracy_value	Text(20)	If available	Accuracy range (+/-) of the elevation measurement.
19	elev_accuracy_unit	Text(15)	If available	Use values in unit valid value table, Appendix 7.18. Unit of the elevation accuracy value.
20	elev_datum_code	Text(1)	Required	Reference datum for the elevation measurement. Must use valid value from elevation datum table, Appendix 7.7
21	source_scale	Text(2)	Required	Scale of source used to determine the latitude and longitude. Must be a valid code from source scale code table, Appendix, 7.8. If GPS is used scale does not apply and "N" should be entered.
22	subcontractor_name_code	Text(10)	If available	Code used to distinguish subcontractor name.
23	verification_code	Text(1)	Not wanted	This field is only to be used by US EPA personnel.
24	reference_point	Text(50)	If available	Use codes in reference point valid value table, Appendix 7.2. Describes the place at which geologic coordinates were established.
25	geometric_type_code	Text(20)	If available	Code used to distinguish the geometric type of the location. For this EDD use "point."
26	rank	Long	Not wanted	This field is only to be used by US EPA personnel.
27	loc_name	Text(30)	If available	Sampling location name.
28	loc_desc	Text(70)	If available	Sampling location description.
29	loc_type	Text(10)	If available	Sampling location type. Use codes in loc_type valid value table, Appendix 7.9
30	loc_purpose	Text(20)	If available	Sampling location purpose.
31	primary_site_code	Text(20)	Required	Unique code for site or area. Must match site_code from Table 3-1: Site File Data Structure.

Table 3-2. Location file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
32	within_facility_yn	Text(1)	Required	Indicates whether this sampling location is within facility boundaries, “Y” for yes or “N” for no.
33	loc_county_code	Text(10)	If available	Location county code; controlled vocabulary using FIPS (Federal Information Processing Standard) codes. FIPS codes can be found via the internet at http://www.itl.nist.gov/fipspubs/ or http://www.oseda.missouri.edu/jgb/geos.html .
34	loc_district_code	Text(10)	If available	Location district code; controlled vocabulary using FIPS codes.
35	loc_state_code	Text(10)	If available	Location state code; controlled vocabulary using FIPS codes.
36	loc_major_basin	Text(10)	If available	Location major basin; controlled vocabulary using HUC (Hydrologic Unit Codes). HUC codes can be found via the internet at http://www.epa.gov/surf . The first 8 digits of the HUC code should be entered here.
37	loc_minor_basin	Text(10)	If available	Location minor basin; controlled vocabulary using HUC codes. Any digits after the 8 th (first 8 are reported in loc_major_basin) should be reported here.
38	remark	Text(255)	If applicable	Location specific comment.
39	total_depth	Number w/decimal precision up to 15	If available	Total depth below ground surface of boring, in feet.
40	depth_to_bedrock	Number w/decimal precision up to 15	If available	Depth below ground surface of bedrock in feet.
41	depth_to_top_of_screen	Number w/decimal precision up to 15	Required if location is a well more than 1 year old	Depth in feet below ground surface to the top of the well screen. This information is required to obtain the vertical location from which the groundwater sample was taken. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.

Table 3-2. Location file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
42	depth_to_bottom_of_screen	Number w/decimal precision up to 15	Required if location is a well more than 1 year old	Depth in feet below ground surface to bottom of well screen. This information is required to obtain the vertical location from which the groundwater sample was taken. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.
43	top_casing_elev	Number w/decimal precision up to 15	Required if location is a well more than 1 year old	Elevation of the top of casing in feet. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.
44	datum_value	Number w/decimal precision up to 15	Required if location is a well more than 1 year old	Value of datum used to reference water level measurements. Normally EPA uses the elevation of the top of well casing as the datum to reference water levels. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.
45	datum_unit	Text (15)	Required if location is a well more than 1 year old	Use values from Unit valid value table, Appendix 7.18. Unit of measure for the well datum. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.
46	step_or_linear	Text (6)	If applicable	Use only for re-surveys of well elevations. If a section of the well casing was removed or added use "step" as the value. If nothing was added or removed from the last survey use "linear" as the value.
47	datum_collect_method_code	Text (2)	Required if location is a well more than 1 year old	Use codes in elevation collection method valid value table, Appendix 7.6. Method used to determine the datum elevation.

Table 3-2. Location file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
48	datum_desc	Text(70)	Required if location is a well more than 1 year old	Description of the datum, such as “top of well casing.” Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.
49	start_date	Date	Required if location is a well more than 1 year old	Date datum was first used. Leave null if sample is not from well or well is less than 1 year old. For wells less than 1 year old, info will be reported in geology files.

4. FORMATS FOR CHEMISTRY FILES

This section contains tables that define the file structures for the Chemistry EDD. The file structures include field measurement, chemistry sample, test/result, and water level. Please notice that some columns are “Not wanted” and only exist to comply with standard EQUIS[®] reporting formats. These columns should simply be reported as null values. The columns marked “Required” must be reported for each row in the file. If they are not reported, the data will not load. Columns marked “If available” should be submitted.

4.1 Chemistry Field Measurements

This file is used for *in situ* measurements taken in the field such as pH, conductivity, Eh, and dissolved oxygen, that are not associated with a sample but are associated with either a site or location. Also include measurements such as air temperature at the site. Data collected in the field that is associated with a sample, such as on site analysis using a mobile lab, should not use this file. Data associated with individual samples should be reported according to Section 4.2 and 4.3. Each Chemistry field measurement file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5CFM_v1.txt (or .csv)

Table 4-1. Chemistry field measurement file data structure

Pos#	Column Name	Data Type	Required	Description
1	table_name	Text (35)	Required	Enter “Location” if the measured parameter applies to a single location or “Site” if the measured parameter applies to a site.
2	sys_loc_code or site_code	Text (20)	Required	Enter a sys_loc_code if the measured parameter applies to a single location or a site_code if the it applies to a site.
3	param_code	Text (10)	Required	Use values in analyte valid value table, Appendix 7.10. These values were derived from the Chemical Abstracts Registry (CAS) Number for the parameter If available. Otherwise USAF ERPIMS PARLABEL were used.
4	measurement_date	Date	Required	Date of measurement.
5	measurement_time	Text (5)	Required	Time of measurement.
6	param_value	Text (20)	Required	Measured value.
7	param_unit	Text (15)	Required	Units that correspond to param_value.
8	measurement_method	Text (20)	If available	Method used to take measurement.
9	param_value_background	Text (20)	If available	Background value of measured parameter.
10	Remark	Text (255)	If available	Any comment and report measurement detection limit if applicable.
11	subcontractor_name_code	Text (10)	If available	Name of contractor.
12	worker_name	Text (50)	If available	Name of individual that took the measurement.
13	instrument_id	Text (50)	If available	Identifier for instrument used to take measurement.
14	calibration_date	Date	If available	Date that instrument was last calibrated.

4.2 Chemistry Sample

The Chemistry sample file contains data for samples collected at a site and location. The unique identifier for each sample is recorded in the sys_sample_code. Please record the sys_sample_code as TB+date for trip blank samples. For example a trip blank collected on April 5, 2000 would have a sys_sample_code of TB040500. A sys_sample_code of 'Trip Blank' is unacceptable because it cannot be distinguished from another trip blank labeled the same way. Each Chemistry sample file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5SMP_v1.txt (or .csv)

Table 4-2. Chemistry sample file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_sample_code	Text(20)	Required	Unique sample identifier. Each sample at a facility must have a unique value, including spikes and duplicates. You have considerable flexibility in the methods used to derive and assign unique sample identifiers, but uniqueness throughout the database is the only restriction enforced by EQuIS [®] .
2	sample_name	Text(30)	If available	Additional sample identification information as necessary. Is not required to be unique (i.e., duplicates are OK).
3	sample_matrix_code	Text(10)	Required	Code which distinguishes between different types of sample matrix. For example, soil samples must be distinguished from ground water samples, etc. Must use valid value from matrix table, Appendix 7.13.
4	sample_type_code	Text(10)	Required	Code which distinguishes between different types of samples. For example, normal field samples must be distinguished from laboratory method blank samples, etc. Must use valid value from sample_type table, Appendix 7.17.
5	sample_source	Text(10)	Required	This field identifies where the sample came from, either Field or Lab. In this import, this should always be Field.
6	parent_sample_code	Text(20)	Required for field duplicate samples	The value of "sys_sample_code" that uniquely identifies the sample that was the source of this sample. For example, the value of this field for a duplicate sample would identify the normal sample of which this sample is a duplicate.
7	sample_delivery_group	Text(10)	If available	EPA and their US EPA data providers are accustomed to using the CLP document definition of SDG. The CLP definition is more like a lab payment group, and is not the same as required by this specification. Automated data verification by EPA will be enhanced if an SDG is more like a "sampling event." For example, ground water samples should be put into a separate SDG from surface water samples to prevent flags associated with surface water matrix effects from being propagated to ground water results.
8	sample_date	Date	Required	Date sample was collected (in MM/DD/YYYY format for EDD).

Table 4-2. Chemistry sample file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
9	sample_time	Time	If available	Time of sample collection in 24-hr (military) HH:MM format.
10	sys_loc_code	Text(20)	Required*	Soil boring or well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2). * Field should be null if field QC sample (e.g., field blank, trip blank, etc.)
11	start_depth	Number w/decimal precision up to 15	If applicable	Beginning depth (top) of sample in feet below ground surface. Leave null for most ground water samples from monitoring wells. Database will derive this information from the start/end depth of the well screen field located in another data table. Only use for groundwater samples if discrete samples are taken at different depth elevations from a single well, i.e. multiple well packer samples.
12	end_depth	Number w/decimal precision up to 15	If applicable	Ending depth (bottom) of sample in feet below ground surface. Leave null for most ground water samples from monitoring wells. Database will derive this information from the start/end depth of the well screen field located in another data table. Only use for groundwater samples if discrete samples are taken at different depth elevations from a single well, i.e. multiple well packer samples.
13	depth_unit	Text(15)	If applicable	Use values from Unit valid value table, Appendix 7.18. Unit of measurement for the sample begin and end depths.
14	chain_of_custody	Text(15)	If available	Chain of custody identifier. A single sample may be assigned to only one chain of custody.
15	sent_to_lab_date	Date	If available	Date sample was sent to lab (in MM/DD/YYYY format for EDD).
16	sample_receipt_date	Date	If available	Date that sample was received at laboratory (in MM/DD/YYYY format for EDD).
17	sampler	Text(30)	If available	Name or initials of sampler.
18	sampling_company_code	Text(10)	Required	Name or initials of sampling company (not controlled vocabulary).
19	sampling_reason	Text(30)	Not wanted	Report as null.
20	sampling_technique	Text(40)	If available	Sampling technique.

Table 4-2. Chemistry sample file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
21	task_code	Text(20)	If available	Code used to identify the task under which the field sample was retrieved. The format for this field is XX-P#-##-##-####. Where XX is the type of task required (PR = Pre Remedial, RI = Remedial Investigation, FS = Feasibility Study, PD = Pre-Design, RD = Remedial Design, RA = Remedial Construction, PC = Post Construction, RM = Removal Action, BD = Before Dredge, AD = After Dredge, BR = Brown Fields, SP = Special Project), and P# is the phase, and ##-##-#### is the date in month, day and year.
22	collection_quarter	Text(5)	Not wanted	Report as null.
23	composite_yn	Text(1)	Required	Is sample a composite sample? "Y" for yes or "N" for no.
24	composite_desc	Text(255)	If available	Description of composite sample (if composite_yn is "Yes").
25	sample_class	Text(10)	not wanted	Report as null.
26	custom_field_1	Text(50)	not wanted	Report as null.
27	custom_field_2	Text(50)	not wanted	Report as null.
28	custom_field_3	Text(50)	not wanted	Report as null.
29	comment	Text(255)	If available	Report as null.

4.3 Chemistry Test/Results

The Chemistry Test/Results file contains data concerning analytical tests and results performed on samples. There are three files associated with test/result data: test/result data, test/result data with quality control (QC) data, and batch data. All data provided by PRPs are expected to be validated prior to submittal to EPA. Therefore the data fields containing QC data are not wanted and Table 4.3 should be submitted. Data provided by US EPA contractors typically are not validated prior to submittal to EPA and require that QC data be submitted using Table 4-4 and Table 4-5. When test/result data are to be submitted without QC data, populate and submit test/result data according to the data structure described in Table 4-3. If QC data are to be submitted with test/result data then populate and submit data according to the data structure described in Table 4-4. Batch data will only be submitted if test/result data with QC data are being submitted. If QC batch data are to be submitted, populate and submit batch data in accordance with Table 4-5.

4.3.1 Chemistry Test/Results without QC

Populate and submit this file when no QC data are to be submitted. Each test/results file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5TRS_v1.txt (or .csv)

Table 4-3. Chemistry test/result file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_sample_code	Text(20)	Required	Unique sample identifier. Each sample at a facility must have a unique value, including spikes and duplicates. You have considerable flexibility in the methods used to derive and assign unique sample identifiers, but uniqueness throughout the database is the only restriction enforced by EQuIS [®] .
2	lab_anl_method_name	Text(35)	Required	Laboratory analytical method name or description. A controlled vocabulary column, valid values can be found in the appendix in table lab_anl_method_name.
3	analysis_date	Date	Required	Date of sample analysis in MM/DD/YYYY format. May refer to either beginning or end of the analysis as required by EPA.
4	analysis_time	Text(5)	Required	Beginning time of sample analysis in 24_hr (military) HH:MM format. Note that this field, combined with the "analysis_date" field is used to distinguish between retests and reruns (if reported). Please ensure that retests have "analysis_date" and/or "analysis_time" differ from the original test event (and fill out the test_type field as needed).
5	total_or_dissolved	Text(1)	Required	Must be either "D" for dissolved or filtered [metal] concentration, or "T" for everything else
6	column_number	Text(2)	Not wanted	Report as null.
7	test_type	Text(10)	Required	Type of test. Valid values include "initial," "reextract1," "reextract2," "reextract3," "reanalysis," "dilution1," "dilution2," and "dilution3."
8	lab_matrix_code	Text(10)	Required	Code which distinguishes between different type of sample matrix. For example, soil samples must be distinguished from ground water samples, etc. See matrix valid value table in Appendix 7.13. The matrix of the sample as analyzed may be different from the matrix of the sample as retrieved (e.g. leachates), so this field is available at both the sample and test level.
9	analysis_location	Text(2)	Required	Must be either "FI" for field instrument or probe, "FL" for mobile field laboratory analysis, or "LB" for fixed_based laboratory analysis.
10	Basis	Text(10)	Required	Must be either "Wet" for wet_weight basis reporting, "Dry" for dry_weight basis reporting, or "NA" for tests for which this distinction is not applicable. The EPA prefers that results are reported on the basis of dry weight where applicable.
11	container_id	Text(30)	Not wanted	Report as null.
12	dilution_factor	Number w/decimal precision up to 7	Required	Effective test dilution factor.

Table 4-3. Chemistry test/result file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
13	prep_method	Text(35)	If available	Laboratory sample preparation method name or description. Must use valid value from std_prep_method table, Appendix 7.14.
14	prep_date	Date	If available	Beginning date of sample preparation in MM/DD/YYYY format.
15	prep_time	Text(5)	If available	Beginning time of sample preparation in 24_hr (military) HH:MM format.
16	leachate_method	Text(15)	Required if Leached	Laboratory leachate generation method name or description. The method name should be sufficient to reflect operation of the laboratory (see analysis method discussion).
17	leachate_date	Date	Required if Leached	Beginning date of leachate preparation in MM/DD/YYYY format.
18	leachate_time	Text(5)	If available	Beginning time of leachate preparation in 24_hr (military) HH:MM format.
19	lab_name_code	Text(10)	Required	Unique identifier of the laboratory as defined by the EPA. Controlled vocabulary, see lab valid value table in the appendix.
20	qc_level	Text(10)	Required	May be either "screen" or "quant."
21	lab_sample_id	Text(20)	Required	Laboratory LIMS sample identifier. If necessary, a field sample may have more than one LIMS lab_sample_id (maximum one per each test event).
22	percent_moisture	Text(5)	If available	Percent moisture of the sample portion used in this test; this value may vary from test to test for any sample. Numeric format is "NN.MM," i.e., 70.1% could be reported as "70.1" but not as "70.1%."
23	subsample_amount	Text(14)	If available	Amount of sample used for test.
24	subsample_amount_unit	Text(15)	If available	Unit of measurement for subsample amount. Must use valid value from units table, Appendix 7.18.
25	analyst_name	Text(30)	Not wanted	Report as null.
26	instrument_id	Text(50)	Not wanted	Report as null.
27	comment	Text(255)	If available	Comments about the test as necessary.
28	preservative	Text(50)	If available	Sample preservative used.
29	final_volume	Text(15)	If available	The final volume of the sample after sample preparation. Include all dilution factors.
30	final_volume_unit	Text(15)	If available	The unit of measure that corresponds to the final_amount.
31	cas_rn	Text(15)	Required	Use values in analyte valid value table, Appendix 7.10.
32	chemical_name	Text(60)	Required	Use the name in the analyte valid value table, Appendix 7.10.
33	result_value	Text(20)	If available	Analytical result reported at an appropriate number of significant digits. May be blank for non_detects.
34	result_error_delta	Text(20)	If available	Error range applicable to the result value; typically used only for radiochemistry results.
35	result_type_code	Text(10)	Required	Must be either "TRG" for a target or regular result, "TIC" for tentatively identified compounds, "SUR" for surrogates, "IS" for internal standards, or "SC" for spiked compounds.

Table 4-3. Chemistry test/result file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
36	reportable_result	Text(10)	Required	Must be either "Yes" for results which are considered to be reportable, or "No" for other results. This field has many purposes. For example, it can be used to distinguish between multiple results where a sample is retested after dilution. It can also be used to indicate which of the first or second column result should be considered primary. The proper value of this field in both of these two examples should be provided by the laboratory (only one result should be flagged as reportable).
37	detect_flag	Text(2)	Required	Maybe either "Y" for detected analytes or "N" for non_detects. Use "Y" for estimated (above detection limit but below the quantitation limit) or ">" and "<" for tests such as flash point. Note that "<" must not be used to indicate non_detects (use "N" for non_detects instead).
38	lab_qualifiers	Text(7)	If available	Qualifier flags assigned by the laboratory. Must use valid value from the qualifiers table, Appendix 7.15.
39	validator_qualifiers	Text(7)	If available	Qualifier flags assigned by the validation firm. Must use valid value from the qualifiers table, Appendix 7.15.
40	organic_yn	Text(1)	Required	Must be either "Y" for organic constituents or "N" for inorganic constituents.
41	method_detection_limit	Text(20)	not wanted	Report as null.
42	reporting_detection_limit	Text(20)	If available	Concentration level above which results can be quantified with confidence. It must reflect conditions such as dilution factors and moisture content. Required for all results for which such a limit is appropriate. The reporting_detection_limit column must be reported as the sample specific detection limit.
43	quantitation_limit	Text(20)	Not wanted	Report as null.
44	result_unit	Text(15)	Required	Units of measurement for the result. Must use valid value from units table, Appendix 7.18.
45	detection_limit_unit	Text(15)	If available	Units of measurement for the detection limit(s). This field is required if a reporting_detection_limit is reported. Must use valid value from units table, Appendix 7.18.
46	tic_retention_time	Text(8)	Not wanted	Report as null.
47	result_comment	Text(255)	If available	Result specific comments.

4.3.2 Chemistry Test/Result with QC Data

The Chemistry test/results file contains data concerning analytical tests performed on samples with quality control data elements. This format is identical to the format of 4.3.1 except additional fields are available for QC data. This format is used only for data providers, mainly EPA contractors, that are submitting quality data elements with their reports. Each Chemistry test/results file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5TRSQC_v1.txt (or .csv)

Table 4-4. Chemistry test/results with QC data file structure

Pos#	Column Name	Data Type	Required	Description
1	sys_sample_code	Text(20)	Required	Unique sample identifier. Each sample at a facility must have a unique value, including spikes and duplicates. You have considerable flexibility in the methods used to derive and assign unique sample identifiers, but uniqueness throughout the database is the only restriction enforced by EQuIS.
2	lab_anl_method_name	Text(35)	Required	Laboratory analytical method name or description. Must use valid value from lab_anl_method_name table, Appendix 7.11.
3	analysis_date	Date	Required	Date of sample analysis in MM/DD/YYYY format. May refer to either beginning or end of the analysis as required by EPA.
4	analysis_time	Text(5)	Required	Beginning time of sample analysis in 24_hr (military) HH:MM format. Note that this field, combined with the "analysis_date" field is used to distinguish between retests and reruns (if reported). Please ensure that retests have "analysis_date" and/or "analysis_time" differ from the original test event (and fill out the test_type field as needed).
5	total_or_dissolved	Text(1)	Required	Must be either "D" for dissolved or filtered [metal] concentration, or "T" for everything else.
6	column_number	Text(2)	Not wanted	Report as null.
7	test_type	Text(10)	Required	Type of test. Valid values include "initial," "reextract1," "reextract2," "reextract3," "reanalysis," "dilution1," "dilution2," and "dilution3."
8	lab_matrix_code	Text(10)	Required	Code which distinguishes between different type of sample matrix. For example, soil samples must be distinguished from ground water samples, etc. See matrix valid value table in Appendix 7.13. The matrix of the sample as analyzed may be different from the matrix of the sample as retrieved (e.g. leachates), so this field is available at both the sample and test level.
9	analysis_location	Text(2)	Required	Must be either "FI" for field instrument or probe, "FL" for mobile field laboratory analysis, or "LB" for fixed_based laboratory analysis.
10	basis	Text(10)	Required	Must be either "Wet" for wet_weight basis reporting, "Dry" for dry_weight basis reporting, or "NA" for tests for which this distinction is not applicable. The EPA prefers that results are reported on the basis of dry weight where applicable.
11	container_id	Text(30)	Required	Use the container ID for the sample bottle.
12	dilution_factor	Number w/decimal precision up to 7	Required	Effective test dilution factor.

Table 4-4. Chemistry test/results with QC data file structure (continued)

Pos#	Column Name	Data Type	Required	Description
13	prep_method	Text(35)	If available	Laboratory sample preparation method name or description. Must use valid value from std_prep_mthd table, Appendix 7.14.
14	prep_date	Date	If available	Beginning date of sample preparation in MM/DD/YYYY format.
15	prep_time	Text(5)	If available	Beginning time of sample preparation in 24_hr (military) HH:MM format.
16	leachate_method	Text(15)	Required if Leached	Laboratory leachate generation method name or description. The method name should be sufficient to reflect operation of the laboratory (see analysis method discussion).
17	leachate_date	Date	Required if Leached	Beginning date of leachate preparation in MM/DD/YYYY format.
18	leachate_time	Text(5)	If available	Beginning time of leachate preparation in 24_hr (military) HH:MM format.
19	lab_name_code	Text(10)	Required	Unique identifier of the laboratory as defined by the EPA. Controlled vocabulary, see lab valid value table in the appendix.
20	qc_level	Text(10)	Required	May be either "screen" or "quant."
21	lab_sample_id	Text(20)	Required	Laboratory LIMS sample identifier. If necessary, a field sample may have more than one LIMS lab_sample_id (maximum one per each test event).
22	percent_moisture	Text(5)	If available	Percent moisture of the sample portion used in this test; this value may vary from test to test for any sample. Numeric format is "NN.MM," i.e., 70.1% could be reported as "70.1" but not as "70.1%."
23	subsample_amount	Text(14)	If available	Amount of sample used for test.
24	subsample_amount_unit	Text(15)	If available	Unit of measurement for subsample amount. Must use valid values from units table, Appendix 7.18.
25	analyst_name	Text(30)	Not wanted	Report as null.
26	instrument_id	Text(50)	Not wanted	Report as null.
27	comment	Text(255)	If available	Comments about the test as necessary.
28	preservative	Text(50)	If available	Sample preservative used.
29	final_volume	Text(15)	If available	The final volume of the sample after sample preparation. Include all dilution factors.
30	final_volume_unit	Text(15)	If available	The unit of measure that corresponds to the final_amount.
31	cas_rn	Text(15)	Required	Use values in analyte valid value table, Appendix 7.10.
32	chemical_name	Text(60)	Required	Use the analyte name listed in the analyte valid value table, Appendix 7.10.
33	result_value	Text(20)	If available	Analytical result reported at an appropriate number of significant digits. May be blank for non_detects.
34	result_error_delta	Text(20)	If available	Error range applicable to the result value; typically used only for radiochemistry results.
35	result_type_code	Text(10)	Required	Must be either "TRG" for a target or regular result, "TIC" for tentatively identified compounds, "SUR" for surrogates, "IS" for internal standards, or "SC" for spiked compounds.

Table 4-4. Chemistry test/results with QC data file structure (continued)

Pos#	Column Name	Data Type	Required	Description
36	reportable_result	Text(10)	Required	Must be either "Yes" for results which are considered to be reportable, or "No" for other results. This field has many purposes. For example, it can be used to distinguish between multiple results where a sample is retested after dilution. It can also be used to indicate which of the first or second column result should be considered primary. The proper value of this field in both of these two examples should be provided by the laboratory (only one result should be flagged as reportable).
37	detect_flag	Text(2)	Required	Maybe either "Y" for detected analytes or "N" for non_detects. Use "Y" for estimated (above detection limit but below the quantitation limit) or ">" and "<" for tests such as flash point. Note that "<" must not be used to indicate non_detects (use "N" for non_detects instead).
38	Lab_qualifiers	Text(7)	If available	Qualifier flags assigned by the laboratory. Must use valid values from qualifier table, Appendix 7.15.
39	validator_qualifiers	Text(7)	If available	Qualifier flags assigned by the validation firm. This is a controlled vocabulary column, valid values can be found in the qualifiers table in appendix.
40	organic_yn	'Y' or 'N'	Required	Must be either "Y" for organic constituents or "N" for inorganic constituents.
41	method_detection_limit	Text(20)	Not wanted	Report as null.
42	reporting_detection_limit	Text(20)	If available	Concentration level above which results can be quantified with confidence. It must reflect conditions such as dilution factors and moisture content. Required for all results for which such a limit is appropriate. The reporting_detection_limit column must be reported as the sample specific detection limit.
43	quantitation_limit	Text(20)	Not wanted	Report as null.
44	result_unit	Text(15)	Required	Units of measurement for the result. Controlled vocabulary, see Units valid value table in the appendix.
45	detection_limit_unit	Text(15)	If available	Units of measurement for the detection limit(s). Controlled vocabulary, see Units valid value table in the appendix. This field is required if a reporting_detection_limit is reported.
46	tic_retention_time	Text(8)	Not wanted	Report as null.
47	result_comment	Text(255)	If available	Result specific comments.
48	qc_original_conc	Text(14)	Required	The concentration of the analyte in the original (unspiked) sample. Might be required for spikes and spike duplicates (depending on user needs). Not necessary for surrogate compounds or LCS samples (where the original concentration is assumed to be zero).
49	qc_spike_added	Text(14)	Required	The concentration of the analyte added to the original sample. Might be required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample (depending on user needs).

Table 4-4. Chemistry test/results with QC data file structure (continued)

Pos#	Column Name	Data Type	Required	Description
50	qc_spike_measured	Text(14)	Required	The measured concentration of the analyte. Use zero for spiked compounds that were not detected in the sample. Might be required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample (depending on user needs).
51	qc_spike_recovery	Text(14)	Required	The percent recovery calculated as specified by the laboratory QC program. Always required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample. Report as percentage multiplied by 100 (e.g., report "120%" as "120").
52	qc_dup_original_conc	Text(14)	Required	The concentration of the analyte in the original (unspiked) sample. Might be required for spike or LCS duplicates only (depending on user needs). Not necessary for surrogate compounds or LCS samples (where the original concentration is assumed to be zero).
53	qc_dup_spike_added	Text(14)	Required	The concentration of the analyte added to the original sample. Might be required for spike or LCS duplicates, surrogate compounds, and any spiked and duplicated sample (depending on user needs). Use zero for spiked compounds that were not detected in the sample. Required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample. Also complete the qc_spike-added field.
54	qc_dup_spike_measured	Text(14)	Required	The measured concentration of the analyte in the duplicate. Use zero for spiked compounds that were not detected in the sample. Might be required for spike and LCS duplicates, surrogate compounds, and any other spiked and duplicated sample (depending on user needs). Also complete the qc_spike_measured field.
55	qc_dup_spike_recovery	Text(14)	Required	The duplicate percent recovery calculated as specified by the laboratory QC program. Always required for spike or LCS duplicates, surrogate compounds, and any other spiked and duplicated sample. Also complete the qc_spike_recovery field. Report as percentage multiplied by 100 (e.g., report "120%" as "120").
56	qc_rpd	Text(8)	Required	The relative percent difference calculated as specified by the laboratory QC program. Required for duplicate samples as appropriate. Report as percentage multiplied by 100 (e.g., report "30%" as "30").
57	qc_spike_lcl	Text(8)	Required	Lower control limit for spike recovery. Required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample. Report as percentage multiplied by 100 (e.g., report "60%" as "60").
58	qc_spike_ucl	Text(8)	Required	Upper control limit for spike recovery. Required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample. Report as percentage multiplied by 100 (e.g., report "120%" as "120").

Table 4-4. Chemistry test/results with QC data file structure (continued)

Pos#	Column Name	Data Type	Required	Description
59	qc_rpd_cl	Text(8)	Required	Relative percent difference control limit. Required for any duplicated sample. Report as percentage multiplied by 100 (e.g., report "25%" as "25").
60	qc_spike_status	Text(10)	Required	Used to indicate whether the spike recovery was within control limits. Use the "*" character to indicate failure, otherwise leave blank. Required for spikes, spike duplicates, surrogate compounds, LCS and any spiked sample.
61	qc_dup_spike_status	Text(10)	Required	Used to indicate whether the duplicate spike recovery was within control limits. Use the "*" character to indicate failure, otherwise leave blank. Required for any spiked and duplicated sample.
62	qc_rpd_status	Text(10)	Required	Used to indicate whether the relative percent difference was within control limits. Use the "*" character to indicate failure, otherwise leave blank. Required for any duplicated sample.

4.3.3 Chemistry Batch Data

The Chemistry batch file contains data that relate the individual samples to the batch identifier. This table is normally only required if the data has not been validated. See Section 3.5. This allows EQuIS[®] to relate laboratory quality control samples with the field samples that were processed and analyzed together. This table has been structured to allow samples to have different batch IDs for the various phases of analysis (e.g., prep, analysis). The majority of samples will only have one batchID assigned by the laboratory. Each Chemistry batch file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5BAT_v1.txt (or .csv)

Table 4-5. Chemistry batch file data structure

Pos#	Column Name	Data type	Required	Description
1	sys_sample_code	Text(20)	Required	Unique sample identifier. Each sample must have a unique value, including spikes and duplicates. Laboratory QC samples must also have unique identifiers. The laboratory and the EQuIS [®] Chemistry user have considerable flexibility in the methods they use to derive and assign unique sample identifiers, but uniqueness throughout the database is the only restriction enforced by EQuIS [®] Chemistry.
2	lab_anl_method_name	Text(35)	Required	Laboratory analytical method name or description. A controlled vocabulary column, valid values can be found in the appendix in table ab_anl_method_name.
3	analysis_date	Date	If available	Date of sample analysis in MM/DD/YYYY format. May refer to either beginning or end of the analysis as required by EPA.

Pos#	Column Name	Data type	Required	Description
4	analysis_time	Text(5)	If available	Beginning time of sample analysis in 24_hr (military) HH:MM format. Note that this field, combined with the "analysis_date" field is used to distinguish between retests and reruns (if reported). Please ensure that retests have "analysis_date" and/or "analysis_time" differ from the original test event (and fill out the test_type field as needed).
5	total_or_dissolved	Text(1)	If available	Must be either "D" for dissolved or filtered [metal] concentration, or "T" for everything else
6	column_number	Text(2)	Not wanted	Report as null.
7	test_type	Text(10)	Required	Type of test. Valid values include "initial," "reextract1," "reextract2," "reextract3," "reanalysis," "dilution1," "dilution2," and "dilution3."
8	test_batch_type	Text(10)	Required	Lab batch type. Valid values include "Prep," "Analysis," and "Leach." This is a required field for all batches.
9	test_batch_id	Text(20)	Required	Unique identifier for all lab batches.

4.4 Water Level

The Water Level file contains information on water levels measured during sampling activities. It contains 17 fields that can be populated for each water level reading. Each water level file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5GWTR_v1.txt (or .csv)

Table 4-6. Water Level file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text20	Required	Soil boring or well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	sys_well_code	Text(20)	Required	Code used to differentiate between multiple wells in one boring. Code is the same as that used for sys_loc_code if single well, e.g., if sys_loc_code is MW-01 then sys_well_code is MW-01.
3	measurement_date	Date	Required	Date of water level measurement.
4	measurement_time	Time	Required	Time of water level measurement.
5	historical_reference_elev	Number w/decimal precision up to 15	Required	Historical reference value. Used for the elevation of past reference points. Elevation must be in feet.
6	water_level_depth	Number w/decimal precision up to 7	Required	Depth of ground water below datum defined in well table (Table 5-3).
7	water_level_elev	Number w/decimal precision up to 7	If available	Elevation of water level. Elevation must be in feet.

Pos#	Column Name	Data Type	Required	Description
8	corrected_depth	Number w/decimal precision up to 7	If available	Depth of water level after any necessary corrections, e.g., if corrections were necessary to water_level_depth because free product was encountered.
9	corrected_elevation	Number w/decimal precision up to 7	If available	Corrected water level elevation. Elevation must be in feet.
10	measured_depth_of_well	Number w/decimal precision up to 7	If available	The depth below ground surface to the bottom of the well.
11	depth_unit	Text (15)	If available	Use values from unit valid value table, Appendix 7.18. Unit of measure for depths.
12	technician	Text (30)	If available	Name of technician measuring water level
13	dry_indicator_yn	Text (1)	If available	Is the well dry? "Y" for yes or "N" for no.
14	measurement_method	Text (20)	If available	Method used to make water level measurements.
15	batch_number	Text (10)	If available	Batch number of group of measurements.
16	dip_or_elevation	Text (10)	If available	Use either "elevation" or "dip." Use "elevation" if water level measurement is above the datum (i.e., artesian well) or "dip" if water level is below datum.
17	remark	Text (255)	If available	Remark on measurement.

5. FORMATS FOR GEOLOGY FILES

This section contains tables that define the file structures for the Geology EDD. The file structures include drilling activity, lithology, well, well construction, geology samples, water level, water table, and down hole point data. The columns marked “Required” must be reported for each row in the file. If they are not reported, the data will not load. The columns marked “If available” should also be reported. If the data are not available, report in the cover letter to the project RPM the data that is not available and the reason why.

Data providers are required to submit all applicable geology files for all monitoring wells installed less than one year from the Initial EDD submittal and for any wells installed in the future. Sites submitting Chemistry EDDs with sample data obtained from existing monitoring wells (wells greater than 1 year old) are *not required* to submit any Geology files. However, it is suggested that geology files be submitted for existing wells if the data are available.

5.1 Drill Activity

The drill activity file contains general information pertaining to the drilling activities resulting from the soil boring. Each drill activity file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5DRA_v1.txt (or .csv)

Table 5-1. Drill activity file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text (20)	Required	Soil boring or well installation location. Must be a valid code for the facility and reported value in the sys_loc_code field of the location file (Table 3-2).
2	drill_event	Text (20)	Required	Used to identify drilling event. Examples of drilling events could be “initial” for initial drilling or “second” for a subsequent drilling at the same sys_loc_code .
3	start_depth	Number w/decimal precision up to 7	If available	The start depth, in feet below ground surface, of the drilling.
4	end_depth	Number w/decimal precision up to 7	If available	End depth, in feet below ground surface of the drilling.
5	start_date	Date	If available	Date drilling began.
6	diameter	Number w/decimal precision up to 7	If available	Diameter of boring.
7	diameter_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for diameter.
8	drill_method	Text (50)	If available	Method used to drill boring.
9	fluid	Text (50)	If available	Description of fluid used during drilling.

Table 5-1. Drill activity file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
10	viscosity	Text (50)	If available	Viscosity of drilling fluid.
11	hammer_wt	Text (50)	If available	Weight of hammer, in pounds, used for sampling.
12	hammer_fall	Text (50)	If available	Distance of hammer fall during sampling in inches.
13	lift_mechanism	Text (50)	If available	Type of mechanism used to lift hammer.
14	new_yn	Text (1)	If available	Is this a new boring? "Y" for yes or "N" for no.
15	repair_yn	Text (1)	If available	Is this drilling event to repair an existing boring? "Y" for yes or "N" for no.
16	deepen_yn	Text (1)	If available	Is this drilling event to deepen an existing boring? "Y" for yes or "N" for no.
17	abandon_yn	Text (1)	If available	Has the boring been abandoned? "Y" for yes or "N" for no.
18	replace_yn	Text (1)	If available	Is this boring event to replace an existing boring? "Y" for yes or "N" for no.
19	public_yn	Text (1)	If available	Is well being install for a public use? "Y" for yes or "N" for no.
20	purpose	Text (70)	If available	Describe the purpose of the boring event.

5.2 Lithology

The lithology file contains all the lithology data for the borings. It contains 16 fields that can be populated for each lithologic unit. Optional comments can be added to describe a depth specific observation within a lithologic unit. For example, you could describe a soil fracture that was noted at a depth of 15 feet within a clay unit. First completely describe the clay unit in a row of the lithologic file. Then add a row with only the sys_loc_code, start_depth (i.e., depth below ground surface of the fracture) and the remark1 and/or remark2 fields filled. Use the remark1 and/or remark2 fields to fully describe the fracture. All other fields on that line must be reported as null. An unlimited number of optional depth specific remarks can be added for each lithologic unit. Each lithology file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5LTH_v1.txt (or .csv)

Table 5-2. Lithology file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text20	Required	Soil boring or well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	start_depth	Number w/decimal precision up to 15	Required	The start depth, in feet below ground surface, of the lithologic unit.
3	material_type	Text(40)	If applicable	The type of material that composes the lithologic unit. Controlled vocabulary, see material list in appendix. Must be used in all cases except when a depth specific comment is being made.

Table 5-2. Lithology file data structure

Pos#	Column Name	Data Type	Required	Description
4	geo_unit_code_1	Text(20)	If available	The data providers interpretation of the hydrogeologic unit present at this lithologic unit, e.g., aquifer 1, aquitard 1, aquifer 2, upper clay unit. See Appendix A.21, for example.
5	geo_unit_code_2	Text(20)	If available	Alternate geologic unit grouping. This can be a sub-classification of geologic_unit_code_1 or a layer used for groundwater flow/transport computer modelling that contains the lithologic unit. See Appendix A.21, for example.
6	remark_1	Text(255)	if applicable	Comment on the lithologic unit.
7	remark_2	Text(255)	if applicable	Additional comment on the lithologic unit.
8	moisture	Text(1)	If available	Was any moisture detected within the lithologic unit? "Y" for yes or "N" for no.
9	permeable	Text(10)	If available	Description of the permeability of the lithologic unit such as "impervious," "semi," "pervious," or "very."
10	consolidated_yn	Text(1)	If available	Was lithologic unit consolidated? "Y" for yes or "N" for no.
11	color	Text(20)	If available	Color of the lithologic unit.
12	observation	Text(255)	If available	General field observations of the lithologic unit.
13	consistency	Text(20)	If available	Description of the consistency of the soil such as very soft, soft, firm, hard or very hard.
14	sorting	Text(20)	If available	Geologic description of the grain size distribution of the lithologic unit. Use "poor" for soil with a wide range of particle sizes or "well" for soil with a narrow range of particle sizes.
15	grainsize	Text(20)	If available	Description of grain size.
16	odor	Text(20)	If available	Description of odor from the soil.

5.3 Well

The well file contains general information relating to well installation. Each well file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5WEL_v1.txt (or .csv)

Table 5-3. Well file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text(20)	Required	Well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	sys_well_code	Text(20)	Required	Code used to differentiate between multiple wells in one boring. Code is the same as that used for sys_loc_code if single well, e.g., if sys_loc_code is MW-01 then sys_well_code is MW-01.
3	well_description	Text(30)	If applicable	Used for additional well description if necessary.
4	well_owner	Text(30)	If available	Name of entity that owns the well.
5	well_purpose	Text (20)	If available	Purpose of well.

Table 5-3. Well file data structure

Pos#	Column Name	Data Type	Required	Description
6	well_status	Text (20)	If available	Current status of well.
7	top_casing_elev	Number w/decimal precision up to 15	If available	Elevation of the top of well casing. Elevation must be in feet.
8	datum_value	Number w/decimal precision up to 15	Required	Value of datum used to reference water level measurements. EPA normally uses top of well casing for datum.
9	datum_unit	Text(15)	Required	Must use values from unit valid value table, Appendix 7.18. Unit of measure for the well datum.
10	datum_desc	Text (70)	Required	Description of the datum, such as "top of well casing."
11	step_or_linear	Text (6)	If available	Use only for re-surveys of well elevations. If a section of the well casing was removed or added use "step" as the value. If nothing was added or removed from the last survey use "linear" as the value.
12	start_date	Date	Required	Date that datum was first used.
13	datum_collect_method_code	Text (2)	If available	Use codes in elevation collection method valid value table, Appendix 7.6. Method used to determine the datum elevation.
14	depth_of_well	Number w/decimal precision up to 15	If available	Depth below ground surface of the well bottom.
15	depth_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measurement for depth.
16	depth_measure_method	Text (20)	If available	Method of measuring depth of well.
17	stickup_height	Text (8)	If available	Height of casing above ground surface.
18	stickup_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for the stickup height.
19	sump_length	Text (20)	If available	Length of sump.
20	sump_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for the sump length.
21	installation_date	Date	If available	Date of well installation.
22	construct_start_date	Date	If available	Date well construction began.
23	construct_complete_date	Date	If available	Date well construction was completed.
24	construct_contractor	Text (10)	If available	Name of contractor that installed well.
25	pump_type	Text (20)	If available	Type of pump used at well such as centrifugal, propeller, jet, helical, rotary, etc.
26	pump_capacity	Text (6)	If available	Capacity of pump.
27	pump_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for the pump capacity and yield.
28	pump_yield	Text (6)	If available	The yield of the pump.
29	pump_yield_method	Text (20)	If available	Method used for pump yield.
30	weep_hole	Text (1)	If available	Is there a weep hole? "Y" for yes or "N" for no.

Table 5-3. Well file data structure (continued)

Pos#	Column Name	Data Type	Required	Description
31	head_configuration	Text (50)	If available	Description of the well head.
32	access_port_yn	Text (1)	If available	Is there an access port? “Y” for yes or “N” for no.
33	casing_joint_type	Text (50)	If available	Type of casing joint such as threaded, flush, or solvent welded.
34	perforator_used	Text (50)	If available	Description of well perforation such as slotted, drilled, or wound.
35	intake_depth	Number w/decimal precision up to 15	If available	Depth in feet below ground surface of the well intake.
36	disinfected_yn	Text (1)	If available	Was well disinfected? “Y” for yes or “N” for no.
37	historical_reference_elev	Number w/decimal precision up to 15	If available	Historical reference value. Used for the elevation of past reference points. Elevation must be in feet. Elevation must be in feet.
38	geologic_unit_code	Text (20)	If available	Geologic unit in which the well intake is installed.
39	remark	Text (255)	If available	Available for general remarks.

5.4 Well Construction

The well construction file contains information relating to well construction and well segments. Information is required for all well segments within each well, including surface plug, protective casing, well casing, annular backfill, annular seal, screen, and filter pack. In order to obtain the depth of groundwater samples, it is particularly important that the depths of the top and bottom of the well screen be submitted for each well. Each well construction file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5WSG_v1.txt (or .csv)

Table 5-4. Well construction file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text20	Required	Soil boring or well installation location. Must be a valid code for the facility and reported in the location file either now or during an earlier data submission.
2	sys_well_code	Text(20)	Required	Code used to differentiate between multiple wells in one boring. Code is the same as that used for sys_loc_code if single well, e.g., if sys_loc_code is MW-01 then sys_well_code is MW-01.
3	segment_type	Text(20)	Required	Use descriptions in well construction and materials valid value table, Appendix 7.20. Type of segment within well (e.g., protective casing, well casing, screen, etc.).
4	material_type_code	Text(20)	Required	Use descriptions in well construction and materials valid value table, Appendix 7.20. Material description of well segment.

Pos#	Column Name	Data Type	Required	Description
5	start_depth	Number w/decimal precision up to 15	Required	Depth, in feet below ground surface, of the top of the segment.
6	end_depth	Number w/decimal precision up to 15	Required	Depth, in feet below ground surface, of the bottom of the segment.
7	depth_unit	Text(15)	Required	The unit of depth measurements. Units must be feet.
8	inner_diameter	Number w/decimal precision up to 15	If available	The inside diameter of segment.
9	outer_diameter	Number w/decimal precision up to 15	If available	The outside diameter of the segment.
10	diameter_unit	Text(15)	If available	Must use values from unit valid value table, Appendix 7.18. The unit of diameter measurements.
11	thickness	Number w/decimal precision up to 15	If available	Thickness of the well segment.
12	thickness_unit	Text(15)	If available	Must use values from unit valid value table, Appendix 7.18. The unit of measurement for thickness.
13	slot_type	Text(20)	if applicable	Type of slots such as bridge, shutter, and continuous.
14	slot_size	Number w/decimal precision up to 15	if applicable	Width of slots.
15	slot_size_unit	Text(15)	if applicable	Must use values from unit valid value table, Appendix 7.18. The unit of measurement for slot size.
16	perf_length	Number w/decimal precision up to 15	if applicable	Length of perforated portion of screen.
17	screen_type	Text(15)	if applicable	Type of screen.
18	material_quantity	Text(20)	If available	Quantity of material used in lbs. Applicable to annular seal/fill material.
19	material_density	Text(20)	If available	Density of the annular seal material in lbs/ft ³ .
20	Remark	Text255	If available	Remarks regarding the segment.

5.5 Geology Samples

The Geology samples file contains geotechnical sample information. Samples collected for the purpose of analyte analysis should be reported using the Chemistry EDD. Each Geology sample file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5GSMP_v1.txt (or .csv)

Table 5-5. Geology samples file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text20	Required	Sample collection location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	geo_sample_code	Text(20)	Required	Unique sample identifier. Considerable flexibility is given in the methods used to derive and assign unique sample identifiers, but uniqueness throughout the database is the only restriction enforced.
3	sample_name	Text(50)	If available	Use to provide a name or description of sample. Does not have to be a unique throughout database.
4	sample_top	Number w/decimal precision up to 15	Required	Depth, in feet below ground surface, to top of sample.
5	sample_bottom	Number w/decimal precision up to 15	Required	Depth, in feet below ground surface, to bottom of sample.
6	sampling_date	Date	If available	Date sample was collected.
7	sampling_time	Text(5)	If available	Time sample was collected in hh:mm.
8	sample_method	Text(30)	If available	Method used to obtain sample, e.g., split spoon or Shelby tube.
9	material_type	Text(40)	If available	Material type of geologic sample. Must use valid value from geology soil materials table, Appendix 7.19.
10	sample_desc	Text(255)	If available	General description of the sample or sampling activities.
11	geologic_unit_code	Text(20)	If available	Code used to identify the geologic unit of sample.
12	liquid_limit (LL)	Number w/decimal precision up to 7	If available	Liquid limit of sample.
13	plastic_limit (PL)	Number w/decimal precision up to 7	If available	Plastic Limit of sample.
14	shrinkage_limit	Number w/decimal precision up to 7	If available	Shrinkage limit of sample.
15	flow_index	Number w/decimal precision up to 7	If available	Flow index of sample.
16	plasticity_index	Number w/decimal precision up to 7	If available	Plasticity index of sample.

Table 5-5. Geology samples file data structure

Pos#	Column Name	Data Type	Required	Description
17	activity	Number w/decimal precision up to 7	If available	Activity of sample.
18	E	Number w/decimal precision up to 7	If available	Void ratio of sample.
19	e_max	Number w/decimal precision up to 7	If available	Maximum void ratio of sample.
20	e_min	Number w/decimal precision up to 7	If available	Minimum void ratio of sample.
21	N	Number w/decimal precision up to 7	If available	Porosity of sample.
22	specific_ gravity	Number w/decimal precision up to 7	If available	Specific gravity of sample.
23	W	Number w/decimal precision up to 7	If available	Water content of sample.
24	opt_w	Number w/decimal precision up to 7	If available	Optimum water content.
25	S	Number w/decimal precision up to 7	If available	Degree of saturation of the sample.
26	K	Number w/decimal precision up to 7	If available	Hydraulic conductivity of sample.
27	K_unit	Number w/decimal precision up to 7	If available	Use unit valid value table in appendix. Unit of measure for K.
28	unit_wt	Number w/decimal precision up to 7	If available	Unit weight of sample.
29	sat_unit_wt	Number w/decimal precision up to 7	If available	Saturated unit weight.
30	dry_unit_wt	Number w/decimal precision up to 7	If available	Dry unit weight.
31	dry_unit_wt_ max	Number w/decimal precision up to 7	If available	Maximum dry unit weight.
32	dry_unit_wt_mi n	Number w/decimal precision up to 7	If available	Minimum dry unit weight.
33	density_unit	Number w/decimal precision up to 7	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for the densities of the sample.

Table 5-5. Geology samples file data structure

Pos#	Column Name	Data Type	Required	Description
34	rel_density	Number w/decimal precision up to 7	If available	Relative density of sample.
35	rel_compaction	Number w/decimal precision up to 7	If available	Relative compaction of sample.
36	consistency	Text (20)	If available	Description of the consistency of the soil sample such as very soft, soft, firm, hard or very hard.
37	organic_carbon	Number w/decimal precision up to 7	If available	Organic carbon content of sample.
38	organic_carbon_unit	Text (15)	if available	Must use values from unit valid value table, Appendix 7.18. Unit of measurement of organic content.

5.6 Water Level

The Water Level file contains information on water levels measured from the soil borings or wells. It contains twelve fields that can be filled in for each water level reading. This file is to be submitted once with the initial geology files. All recurring water level information should be submitted with the Chemical files using the proper file name described in Section 4.

Each Water Level file must be named according to the following convention:
 SiteNameDate.EPAIDCode.EPAR5GWTR_v1.txt (or .csv)

Table 5-6. Water Level file data structure

Pos#	Column Name	Data Type	Required	Description
1	sys_loc_code	Text20	Required	Soil boring or well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	sys_well_code	Text(20)	Required	Code used to differentiate between multiple wells in one boring. Code is the same as that used for sys_loc_code if single well, e.g., if sys_loc_code is MW-01 then sys_well_code is MW-01.
3	measurement_date	Date	Required	Date of water level measurement.
4	measurement_time	Time	Required	Time of water level measurement.
5	historical_reference_elev	Number w/decimal precision up to 15	Required	Historical reference value. Used for the elevation of past reference points. Elevation must be in feet.
6	water_level_depth	Number w/decimal precision up to 7	Required	Depth of ground water below datum defined in well table (Table 5.3).
7	water_level_elev	Number w/decimal precision up to 7	if available	Elevation of water level. Elevation must be in feet.

Table 5-6. Water Level file data structure

Pos#	Column Name	Data Type	Required	Description
8	corrected_depth	Number w/decimal precision up to 7	If available	Depth of water level after any necessary corrections, e.g., if corrections were necessary to water_level_depth because free product was encountered.
9	corrected_elevation	Number w/decimal precision up to 7	If available	Corrected water level elevation. Elevation must be in feet.
10	measured_depth_of_well	Number w/decimal precision up to 7	If available	The depth below ground surface to the bottom of the well.
11	depth_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of measure for depths.
12	technician	Text (30)	If available	Name of technician measuring water level.
13	dry_indicator_yn	Text (1)	if available	Is the well dry? "Y" for yes or "N" for no.
14	measurement_method	Text (20)	if available	Method used to make water level measurements.
15	batch_number	Text (10)	If available	Batch number of group of measurements.
16	dip_or_elevation	Text (10)	If available	Use either "elevation" or "dip." Use "elevation" if water level measurement is above the datum (i.e., artesian well) or "dip" if water level is below datum.
17	remark	Text (255)	If available	Remark on measurement.

5.7 Water Table

The water table file stores data pertaining the water table. Each water table file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5TBL_v1.txt (or .csv)

Table 5-7. Water table file data structure

Pos#	Column Name	Data Type	Required	Description
1	Sys_loc_code	Text (20)	Required	Soil boring or well installation location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	type	Text (20)	Required	Aquifer designation such as unconfined1, confined1, or confined2.
3	sequence	Text (20)	Required	Designation of when water level measurement was taken. For example, measurement before water stabilized would be "unstabilized" and after stabilization would be "stabilized."
4	depth	Number w/decimal precision up to 15	Required	Depth of water table, in feet, below reference point.
5	flowing_yn	Text (1)	If available	Is the water table flowing? "Y" for yes or "N" for no.
6	measurement_method	Text (50)	If available	Method of measuring water table depth.

Table 5-7. Water table file data structure

Pos#	Column Name	Data Type	Required	Description
7	capped_pressure	Number w/decimal precision up to 15	If available	Hydrostatic pressure of confined aquifer.
8	capped_pressure_unit	Text (15)	If available	Use values from Unit valid value table. Unit of measure for capped pressure.
9	reference_point	Text (50)	If available	Description of reference point from which depth were measured.
10	reference_elevation	Number w/decimal precision up to 15	Required	The reference point elevation. Elevation must be in feet.
11	temperature	Number w/decimal precision up to 15	If available	Temperature of water in the water table.
12	temperature_unit	Text (15)	If available	Must use values from unit valid value table, Appendix 7.18. Unit of temperature.

5.8 Geology Down Hole Point Data

The Geology down hole point data file stores data from down hole logging methods such as Cone Penetrometer Tests and geophysics. All down hole logging data should be submitted. Report the parameter being measured in the “param” field, such as resistivity, and report the measured value at the depth of the measurement. Table 5-8 presents the file structure and Table 5-9 gives an example a down hole point file ready to be converted to a text file. Each Geology down hole point data file must be named according to the following convention:

SiteNameDate.EPAIDCode.EPAR5DHP_v1.txt (or .csv)

Table 5-8. Geology Down Hole Point File Data Structure

Pos#	Column Name	Data Type	Required	Description
1	Sys_loc_code	Text20	Required	Sample collection location. Must be a valid code for the facility and reported in the sys_loc_code field of the location file (Table 3-2).
2	Depth	Number w/decimal precision up to 15	Required	Depth of measurement below ground surface in feet.
3	Param	Text(20)	Required	The parameter being measured such as tip stress, resistivity, or pore pressure.
4	param_value	Number w/decimal precision up to 15	Required	The measured value of the parameter.

Table 5-9. Example of down hole point data file

Sys_loc_code	Depth	Param	Param_Value
MW01	10.8	Tip Stress	612
MW01	11.2	Tip Stress	624
MW01	10.8	Sleeve Stress	6.1
MW01	11.2	Sleeve stress	5.8
MW02	9.5	Resistivity	510
MW02	10.1	Resistivity	521
MW02	11.0	Resistivity	889

6. TECHNICAL SUPPORT

EPA Region 5 provides technical support for users of this EDD. For questions concerning data, data formats, and submission procedures please contact **X at Y**. For questions relating to the quarterly groundwater modeling program, please contact your site RPM.

7. APPENDIX - VALID VALUES

All tables presented within this appendix are located within the EDD.pdf file available on the EDMAN website: www.epa.gov/region5superfund/edman.

7.1 EPA Facility IDs (EPA ID Code)

facility_id	site_name
	<i>Illinois</i>
ILD980397079	A & F MATERIAL RECLAIMING, INC.
ILD053219259	ACME SOLVENT RECLAIMING(MORRISTOWN PLANT
ILD980607055	ADAMS COUNTY QUINCY LANDFILLS 2&3
ILD002994259	AMOCO CHEMICALS (JOLIET LANDFILL)
ILD021440375	BELOIT CORP.
ILD980497663	BELVIDERE MUNICIPAL LANDFILL
ILD010236230	BYRON SALVAGE YARD
ILD981781065	CENTRAL ILLINOIS PUBLIC SERVICE CO.
ILD050231976	CIRCLE SMELTING CORP
ILD980792303	CROSS BROTHERS PAIL RECYCLING (PEMBROKE)
ILD062340641	DEPUE/NEW JERSEY ZINC/MOBIL CHEM CORP
ILD980606305	DUPAGE COUNTY LANDFILL/BLACKWELL FOREST
ILD984836734	EVERGREEN MANOR GW CONTAMINATION PLUME
ILD990817991	GALESBURG/KOPPERS CO.
ILD980605836	H.O.D. LANDFILL
ILD980996789	ILADA ENERGY CO.
ILD042671248	INDIAN REFINERY-TEXACO LAWRENCEVILLE
ILT180011975	INTERSTATE POLLUTION CONTROL, INC
ILD006282479	JENNISON-WRIGHT CORPORATION
ILD005443544	JOHNS-MANVILLE CORP.
IL0210090049	JOLIET ARMY AMMUNITION PLANT (LAP AREA)
IL7213820460	JOLIET ARMY AMMUNITION PLANT (MFG AREA)
ILD980823991	KERR-MCGEE (KRESS CREEK/W BRANCH DUPAGE)
ILD980824007	KERR-MCGEE (REED-KEPLER PARK)
ILD980824015	KERR-MCGEE (RESIDENTIAL AREAS)
ILD980824031	KERR-MCGEE (SEWAGE TREATMENT PLANT)
ILD980794333	LASALLE ELECTRIC UTILITIES
ILD005451711	LENZ OIL SERVICE, INC.
ILD980497788	MIG/DEWANE LANDFILL
ILD096731468	NL INDUSTRIES/TARACORP LEAD SMELTER
ILD980606750	OTTAWA RADIATION AREAS
ILD000802827	OUTBOARD MARINE CORP.
ILD980606685	PAGEL'S PIT
ILD005252432	PARSONS CASKET HARDWARE CO.
ILD003817137	PETERSEN SAND & GRAVEL
IL8143609487	SANGAMO ELECTRIC/CRAB ORCHARD NWR (USDOI
ILD980792006	SAUGET AREA 1
IL3210020803	SAVANNA ARMY DEPOT ACTIVITY

facility_id	site_name
ILD045063450	SHEFFIELD (US ECOLOGY, INC.)
ILD981000417	SOUTHEAST ROCKFORD GD WTR CONTAMINATION
ILD005110143	STAUFFER CHEM (CHIC HEIGHTS PLNT)
ILD048306138	TRI-COUNTY LANDFILL/WASTE MGMT ILLINOIS
ILD000814673	VELSICOL CHEMICAL CORP.(ILLINOIS)
ILD006114151	WARNER ELECTRIC BRAKE & CLUTCH CO
ILD047019732	WAUCONDA SAND & GRAVEL
ILD980605943	WOODSTOCK MUNICIPAL LANDFILL
ILD980500102	YEOMAN CREEK LANDFILL
	<i>Indiana</i>
IND016360265	AMERICAN CHEMICAL SERVICE, INC.
IND006418651	BENNETT STONE QUARRY
IND005480462	CAM-OR INC
IND016395899	CARTER LEE LUMBER CO.
IND980607626	COLUMBUS OLD MUNICIPAL LANDFILL #1
IND000715490	CONRAIL RAIL YARD (ELKHART)
IND001213503	CONTINENTAL STEEL CORP.
IND980607881	DOUGLASS ROAD/UNIROYAL, INC., LANDFILL
IND084259951	ENVIROCHEM CORP.
IND980605877	FIRESTONE INDUSTRIAL PRODUCTS CO.
IND074315896	FISHER-CALO
IND980679542	FORT WAYNE REDUCTION DUMP
IND980999635	GALEN MYERS DUMP/DRUM SALVAGE
IND980500292	HIMCO DUMP
INT190010876	INTERNATIONAL MINERALS (E. PLANT)
IND980500524	LAKE SANDY JO (M&M LANDFILL)
IND064703200	LAKELAND DISPOSAL SERVICE, INC.
IND980794341	LEMON LANE LANDFILL
IND980794358	MAIN STREET WELL FIELD
IND980794366	MARION (BRAGG) DUMP
IND980500417	MCCARTY'S BALD KNOB LANDFILL
IND980615421	MIDCO I
IND980679559	MIDCO II
IND980794549	NEAL'S DUMP (SPENCER)
IND980614556	NEAL'S LANDFILL (BLOOMINGTON)
IND980794432	NINTH AVENUE DUMP
IND050530872	NORTHSIDE SANITARY LANDFILL, INC
IND980608202	PARROT ROAD DUMP
IND980684583	POER FARM
IND006377048	PRESTOLITE BATTERY DIVISION
IND000807107	REILLY TAR & CHEMICAL(INDIANAPOLIS PLANT
IND040313017	SEYMOUR RECYCLING CORP.
IND980607360	SOUTHSIDE SANITARY LANDFILL
IND980997639	TIPPECANOE SANITARY LANDFILL, INC
IND006038764	TRI-STATE PLATING
IND047030226	U.S. SMELTER & LEAD REFINERY INC.

facility_id	site_name
IND980504005	WASTE, INC., LANDFILL
IND048989479	WAYNE WASTE OIL
IND980794374	WEDZEB ENTERPRISES, INC.
IND980999791	WHITEFORD SALES & SERVICE/NATIONALEASE
	<i>Michigan</i>
MID006522791	ADAM'S PLATING
MI0001119106	AIRCRAFT COMPONENTS (D & L SALES)
MID980504450	ALBION-SHERIDAN TOWNSHIP LANDFILL
MID006007306	ALLIED PAPER/PORTAGE CK/KALAMAZOO RIVER
MID006029102	AMERICAN ANODCO, INC.
MID002931228	ANDERSON DEVELOPMENT CO.
MID980794382	AUTO ION CHEMICALS, INC.
MID980791461	AVENUE "E" GROUND WATER CONTAMINATION
MID017188673	BARRELS, INC.
MID981092935	BAY CITY MIDDLEGROUNDS
MID005107222	BENDIX CORP./ALLIED AUTOMOTIVE
MID000605717	BERLIN & FARRO
MID006030373	BOFORS NOBEL, INC.
MID980410617	BURROWS SANITATION
MID062222997	BUTTERWORTH #2 LANDFILL
MID980678627	CANNELTON INDUSTRIES, INC.
MID980274179	CARTER INDUSTRIALS, INC.
MID980794663	CEMETERY DUMP
MID980794390	CHARLEVOIX MUNICIPAL WELL
MID980477079	CHEM CENTRAL
MID980002273	CLARE WATER SUPPLY
MID980608970	CLIFF/DOW DUMP
MID980504716	DUELL & GARDNER LANDFILL
MID000809640	E.I. DU PONT (MONTAGUE PLANT)
MID005068143	ELECTROVOICE
MID980609366	FOLKERTSMA REFUSE
MID981089246	FORD MOTOR CO. (SLUDGE LAGOON)
MID980410740	FOREST WASTE PRODUCTS
MID980410823	G&H LANDFILL
MID017418559	GRAND TRAVERSE OVERALL SUPPLY CO.
MID980794531	GRATIOT COUNTY GOLF COURSE
MID980506281	GRATIOT COUNTY LANDFILL
MI0001271535	H & K SALES
MID017075136	H. BROWN CO., INC.
MID980794408	HEDBLUM INDUSTRIES
MID005341714	HI-MILL MANUFACTURING CO.
MID006014906	HOOKE (MONTAGUE PLANT)
MID980794416	IONIA CITY LANDFILL
MID980609440	J & L LANDFILL
MID980506463	K&L AVENUE LANDFILL
MID006016703	KAYDON CORP.

facility_id	site_name
MID981089915	KENT CITY MOBILE HOME PARK
MID000260281	KENTWOOD LANDFILL
MID043681840	KYSOR INDUSTRIAL CORP.
MID006014666	LACKS INDUSTRIES, INC.
MID054165030	LENAWEE DISPOSAL SERVICE, INC. LANDFILL
MID067340711	LIQUID DISPOSAL, INC.
MID980794457	LITTLEFIELD TOWNSHIP DUMP
MID985574227	LOWER ECORSE CREEK DUMP
MID980794465	MASON COUNTY LANDFILL
MID005339676	MCGRAW EDISON CORP.
MID980992952	METAL WORKING SHOP
MID980506562	METAMORA LANDFILL
MID000775957	MICHIGAN DISPOSAL(CORK STREET LANDFILL)
MID980702989	MOTOR WHEEL, INC.
MID072569510	MUSKEGON CHEMICAL CO.
MID005480900	NORTH BRONSON INDUSTRIAL AREA
MID020883609	NORTHERNAIRE PLATING
MID084566900	NOVACO INDUSTRIES
MID990858003	ORGANIC CHEMICALS, INC.
MID980794440	OSSINEKE GROUND WATER CONTAMINATION
MID060174240	OTT/STORY/CORDOVA CHEMICAL CO.
MID980794747	PACKAGING CORP. OF AMERICA
MID980476907	PARSONS CHEMICAL WORKS, INC.
MID006031348	PEERLESS PLATING CO.
MID006013049	PETOSKEY MUNICIPAL WELL FIELD
MID095402210	RASMUSSEN'S DUMP
MID006028062	ROCKWELL INTERNATIONAL CORP. (ALLEGAN)
MID980499842	ROSE TOWNSHIP DUMP
MID005340088	ROTO-FINISH CO., INC.
MID000724930	SCA INDEPENDENT LANDFILL
MID980794473	SHIAWASSEE RIVER
MID069826170	SOUTH MACOMB DISPOSAL (LANDFILLS 9 & 9A)
MID980608780	SOUTHWEST OTTAWA COUNTY LANDFILL
MID000268136	SPARTA LANDFILL
MID079300125	SPARTAN CHEMICAL CO.
MID980794481	SPIEGELBERG LANDFILL
MID980499966	SPRINGFIELD TOWNSHIP DUMP
MID980609341	STATE DISPOSAL LANDFILL, INC.
MID980703011	STURGIS MUNICIPAL WELLS
MID980794655	TAR LAKE
MID044567162	THERMO-CHEM, INC.
MID980901946	TORCH LAKE
MID980794556	U.S. AVIEX
MID000722439	VELSICOL CHEMICAL CORP.(MICHIGAN)
MID980793806	VERONA WELL FIELD
MID980701247	WASH KING LAUNDRY

facility_id	site_name
MID060179587	WASTE MANAGEMENT OF MICHIGAN (HOLLAND)
MID980701254	WHITEHALL MUNICIPAL WELLS
MI5570024278	WURTSMITH AIR FORCE BASE
	<i>Minnesota</i>
MND980904023	ADRIAN MUNICIPAL WELL FIELD
MND980898068	AGATE LAKE SCRAPYARD
MND980823975	ARROWHEAD REFINERY CO.
MND982425209	BAYTOWN TOWNSHIP GROUND WATER PLUME
MND053417515	BOISE CASCADE/ONAN CORP./MEDTRONICS,INC.
MND000686196	BURLINGTON NORTHERN (BRainerd/BAXTER)
MND981191570	DAKHUE SANITARY LANDFILL
MND981088180	EAST BETHEL DEMOLITION LANDFILL
MND006481543	FMC CORP. (FRIDLEY PLANT)
MND038384004	FREEWAY SANITARY LANDFILL
MND985701309	FRIDLEY COMMONS PARK WELL FIELD
MND051441731	GENERAL MILLS/HENKEL CORP.
MND044799856	JOSLYN MANUFACTURING & SUPPLY CO.
MND000686071	KOCH REFINING CO./N-REN CORP.
MND000819359	KOPPERS COKE
MND980904049	KUMMER SANITARY LANDFILL
MND059680165	KURT MANUFACTURING CO.
MND981090483	LAGRAND SANITARY LANDFILL
MND980792469	LEHILLIER/MANKATO SITE
MND980904072	LONG PRAIRIE GROUND WATER CONTAMINATION
MND006192694	MACGILLIS & GIBBS/BELL LUMBER & POLE CO.
MND980792287	MORRIS ARSENIC DUMP
MN3170022914	NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
MN7213820908	NEW BRIGHTON/ARDEN HILLS/TCAAP (USARMY)
MND097891634	NL INDUSTRIES/TARACORP/GOLDEN AUTO
MND006154017	NUTTING TRUCK & CASTER CO.
MND980904056	OAK GROVE SANITARY LANDFILL
MND980609515	OAKDALE DUMP
MND000874354	OLMSTED COUNTY SANITARY LANDFILL
MND980609572	PERHAM ARSENIC SITE
MND000245795	PINE BEND SANITARY LANDFILL
MND980609804	REILLY TAR&CHEM (ST. LOUIS PARK PLANT)
MND980904064	RITARI POST & POLE
MND980609614	SOUTH ANDOVER SITE
MND981002256	ST. AUGUSTA SANITARY LANDFILL/ENGEN DUMP
MND039045430	ST. LOUIS RIVER SITE
MND057597940	ST. REGIS PAPER CO.
MN8570024275	TWIN CITIES AIR FORCE BASE(SAR LANDFILL)
MND022949192	UNION SCRAP IRON & METAL CO.
MND980613780	UNIVERSITY MINNESOTA (ROSEMOUNT RES CEN)
MND981002249	WAITE PARK WELLS
MND980704738	WASHINGTON COUNTY LANDFILL

facility_id	site_name
MND980609119	WASTE DISPOSAL ENGINEERING
MND006252233	WHITTAKER CORP.
MND980034516	WINDOM DUMP
	<i>Ohio</i>
OH1170090004	AIR FORCE PLANT 85
OHD043730217	ALLIED CHEMICAL & IRONTON COKE
OHD057243610	ALSCO ANACONDA
OHD017506171	ARCANUM IRON & METAL
OHD980611735	BIG D CAMPGROUND
OHD980509616	BOWERS LANDFILL
OHD980509657	BUCKEYE RECLAMATION
OHD074727793	CHEM-DYNE
OHD980614549	CHEMICAL & MINERALS RECLAMATION
OHD980509830	COSHOCTON LANDFILL
OHD980611909	DIAMOND SHAMROCK CORP(PAINESVILLE WORKS)
OHD004210563	DOVER CHEMICAL CORP.
OHD980509947	E.H. SCHILLING LANDFILL
OH6890008976	FEED MATERIALS PRODUCTION CENTER (USDOE)
OHD980614572	FIELDS BROOK
OHD980794630	FULTZ LANDFILL
OHD004302428	GENERAL ELECTRIC(COSHOCTON PLANT)
OHD000377911	INDUSTRIAL EXCESS LANDFILL
OHD061722211	LASKIN/POPLAR OIL CO.
OHD980611800	MIAMI COUNTY INCINERATOR
OH6890008984	MOUND PLANT (USDOE)
OHD980610018	NEASE CHEMICAL
OHD980794614	NEW LYME LANDFILL
OHD980611875	NORTH SANITARY LANDFILL
OHD980510200	OLD MILL
OHD004379970	ORMET CORP.
OHD000382663	POWELL ROAD LANDFILL
OHD076773712	PRISTINE, INC.
OHD980610042	REILLY TAR & CHEMICAL(DOVER PLANT)
OHD980903447	REPUBLIC STEEL CORP. QUARRY
OH3571924544	RICKENBACKER AIR NATIONAL GUARD (USAF)
OHD093895787	SANITARY LANDFILL CO. (INDUSTRIAL WASTE)
OHD063963714	SKINNER LANDFILL
OHD071650592	SOUTH POINT PLANT
OHD980609994	SUMMIT NATIONAL
OHD004179339	TRW, INC. (MINERVA PLANT)
OHD018392928	UNITED SCRAP LEAD CO., INC.
OHD980794606	VAN DALE JUNKYARD
OH7571724312	WRIGHT-PATTERSON AIR FORCE BASE
OHD980794598	ZANESVILLE WELL FIELD
	<i>Wisconsin</i>
WID980610380	ALGOMA MUNICIPAL LANDFILL

facility_id	site_name
WIT560010118	BETTER BRITE PLATING CHROME & ZINC SHOPS
WID980610646	CITY DISPOSAL CORP. LANDFILL
WID980820062	DELAVAN MUNICIPAL WELL #4
WID980820054	EAU CLAIRE MUNICIPAL WELL FIELD
WID980901227	FADROWSKI DRUM DISPOSAL
WID006136659	FORT HOWARD PAPER CO. LAGOONS
WI0001954841	FOX RIVER NRDA/PCB RELEASES
WID980610059	HAGEN FARM
WID052906088	HECHIMOVICH SANITARY LANDFILL
WID980511919	HUNTS DISPOSAL LANDFILL
WID000712950	JANESVILLE ASH BEDS
WID980614044	JANESVILLE OLD LANDFILL
WID006073225	KOHLER CO. LANDFILL
WID058735994	LAUER I SANITARY LANDFILL
WID980901243	LEMBERGER LANDFILL, INC.
WID056247208	LEMBERGER TRANSPORT & RECYCLING
WID078934403	MADISON METROPOLITAN SEWERAGE DISTRICT
WID980820070	MASTER DISPOSAL SERVICE LANDFILL
WID980823082	MID-STATE DISPOSAL, INC. LANDFILL
WID039052626	MOSS-AMERICAN(KERR-MCGEE OIL CO.)
WID000713180	MUSKEGO SANITARY LANDFILL
WID083290981	N.W. MAUTHE CO., INC.
WID006196174	NATIONAL PRESTO INDUSTRIES, INC.
WID006183826	NORTHERN ENGRAVING CO.
WID006100275	OCONOMOWOC ELECTROPLATING CO. INC
WID000808568	OMEGA HILLS NORTH LANDFILL
WID980821656	ONALASKA MUNICIPAL LANDFILL
WID006176945	PENTA WOOD PRODUCTS
WID980610604	REFUSE HIDEAWAY LANDFILL
WID980610190	RIPON CITY LANDFILL
WID980610141	SAUK COUNTY LANDFILL
WID980820096	SCHMALZ DUMP
WID046536785	SCRAP PROCESSING CO., INC.
WID980996367	SHEBOYGAN HARBOR & RIVER
WID980902969	SICKLER LANDFILL
WID980901219	STOUGHTON CITY LANDFILL
WID980616841	TOMAH ARMORY
WID980610299	TOMAH FAIRGROUNDS
WID980610307	TOMAH MUNICIPAL SANITARY LANDFILL
WID980901235	WASTE MGMT OF WI (BROOKFIELD SANIT LF)
WID990829475	WASTE RESEARCH & RECLAMATION CO.
WID980993521	WAUSAU GROUND WATER CONTAMINATION
WID980610620	WHEELER PIT

7.2 Reference Point

Reference Code	Description
PG	Plant Entrance – General
PP	Plant Entrance – Personnel
PF	Plant Entrance – Freight
AS	Air Release Stack
AV	Air Release Vent
ST	Storage Tank
WR	Water Release Pipe
SP	Lagoon or Settling Pond
LW	Liquid Waste Treatment Unit
AE	Atmosphere Emissions Treatment Unit
SD	Solid Waste Treatment/Disposal Unit
SS	Solid Waste Storage Area
LF	Loading Facility
LC	Loading Area
PU	Process Unit
PC	Process Unit Area
AB	Administrative Building
FC	Facility Centroid
NE	NE Corner of Land Parcel
SE	SE Corner of Land Parcel
NW	NW Corner of Land Parcel
SW	SW Corner of Land Parcel
CE	Center of Facility
WL	Well
WA	Well Protection Area
WM	Well Monitoring Station
AM	Air Monitoring
OT	Other
UN	Unknown

7.3 Horizontal Collection Method

horiz_collect_method_code	Description
A1	Address matching-house number
A2	Address matching-block face
A3	Address matching-street centerline
A4	Address matching-nearest intersection
A5	Address matching-primary name
A6	Address matching-digitized
AO	Address matching-other
C1	Census block-1990-centroid
C2	Census block/group-1990-centroid
C3	Census block tract-1990-centroid
CO	Census other

horiz_collect_method_code	Description
G1	GPS carrier phase static relative – positioning technique
G2	GPS carrier phase kenetic relative – positioning technique
G3	GPS code measurements (psuedo range) – differential (DGPS)
G4	GPS code measurements (psuedo range) – precise positioning service
G5	GPS code measurements (psuedo range) – standard positioning service SA off
G6	GPS code measurements (psuedo range) – standard positioning service SA on
I1	Interpolation-map
I2	Interpolation-photo
I3	Interpolation-satellite
IO	Interpolation-other
L1	LORAN
P1	Public_land-survey-quartering
P2	Public-land-surveying-footing
S1	Classial surveying techniques
Z1	Zipcode-centroid
UN	Unknown

7.4 Horizontal Accuracy Units

horiz_accuracy_unit	Description
1	Degrees
2	Minutes
3	Seconds
4	Meters
5	Feet
6	Kilometers
7	Miles

7.5 Horizontal Datum Codes

horiz_datum_code	Description
1	NAD27
2	NAD83
O	Other
U	Unknown

7.6 Elevation Collection Method

elev_collect_method_code	Description
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elev_collect_method_code	Description
A1	Altimetry
G1	GPS carrier phase static relative positioning technique
G2	GPS carrier phase kinematic relative positioning technique
G3	GPS code measurements (pseudo range) – differential (DGPS)
G4	GPS code measurements (pseudo range) – precise positioning service
G5	GPS code measurements (pseudo range) – standard positioning service SA off
G6	GPS code measurements (pseudo range) – standard positioning service SA on
L1	Precise leveling from a bench mark
L2	Leveling between non bench mark control points
L3	Trigonometric leveling
P1	Photogrammetric
S1	Classical surveying techniques
T1	Topographic map interpolation
OT	Other

7.7 Elevation Datum Codes

elev_datum_code	Description
1	NAVD88
2	NGVD29
3	Elevation from mean sea-level
4	Local tidal datum
O	Other
U	Unknown
N	Not applicable

7.8 Source Scale Codes

source_scale	Description
Ranges	
1	Source scale ranging from 1>=1:500
2	Source scale ranging from 1:500 to 1:5,000
3	Source scale ranging from 1:5001 to 1:10,000
4	Source scale ranging from 1:10,001 to 1:15,000
5	Source scale ranging from 1:15,001 to 1:20,000
6	Source scale ranging from 1:20,001 to 1:25,000
7	Source scale ranging from 1:25,001 to 1:50,000
8	Source scale ranging from 1:50,001 to 1:100,000
9	Source scale < 1:100,000

source_scale	Description
Discrete values	
A	1:10,000
B	1:12,000
C	1:15,840
D	1:20,000
E	1:24,000
F	1:25,000
G	1:50,000
H	1:62,500
I	1:63,360
J	1:100,000
K	1:125,000
L	1:250,000
M	1:500,000
N	None
O	Other

7.9 loc_type

loc_type	Description
dirpush	Direct push
exwell	Extraction well
mw	Monitoring well
genloc	General Location
processwtr	Process water
soilbore	Soil boring
surfsoil	Surface soil
sed	Sediment

7.10 Analyte

chemical_name	cas_rn
% SATURATION	SATURATION
(1-ETHYLPROPYL) CYCLOHEXANE	EPRCYHX
(1-METHYLPROPYL)-CYCLOHEXANE	7058-01-7
(2-PHENYLETHYL)HYDRAZINE	51-71-8
(3.BETA)-ERGOST-5-EN-3-OL	474-62-4
(3-METHYLBUTYL)-CYCLOPENTANE	MB3CYC5N
(5.ALPHA.,13.ALPHA)-D-HOMOANDROSTANE	HMAOST
(6H)CYCLOBUTA[JK]PHENANTHRENE	CB6HJKPHAN
(S)-(+)-1,2-PROPANEDIOL	4254-15-3
(Z)6-PENTADECEN-1-OL	PTDC1OL6
(Z)-9-OCTADECANIMIDE	OCTDMD9Z
(Z)CYCLODODECENE	1501-82-2
(Z)METHYL ESTER 9-HEXADECANOIC ACID	MEHXDCNA9
.ALPHA.,.ALPHA CYCLOHEXANEMETHANOL	AACYHXME

chemical name	cas_rn
[:(HEXADECYCLOXY)METHYL]-OXIRANE	HXDMOX
[R-(Z)]12-(ACETYLOXY)-METHYL ESTER-9-OCTADECANOIC	AC12MEOCDN9
1- CHLORO-TETRADECANE	2425-54-9
1-(1,1-DIMETHYL ETHO PROPANE)	DMEPRN
1-(1-NAPHTHYL)-2-THIOUREA	86-88-4
1-(2-CHLOROETHOXY) BENZENE	622-86-6
1(2-CHLOROPHENYL)-2-THIOUREA	5344-82-1
1-(2-METHOXYPROPOXY)-2-PROPANOL	13429-07-7
1-(2-METHYLCYCLOHEXYL)-3-PHENYLUREA	1982-49-6
1-(2-PROPENYL)NAPHTHALENE	2489-86-3
1-(3-ETHYLOXIRANYL)ETHANONE	OXIRYLC2
1-(4-HYDROXY-3-METHOXYPHENYL)ETHANONE	498-02-2
1,1,1,2-TETRACHLOROETHANE	630-20-6
1,1,1-TRICHLORO-2,2,2-TRIFLUOROETHANE	354-58-5
1,1,1-TRICHLOROETHANE	71-55-6
1,1,1-TRIFLUOROTOLUENE	98-08-8
1,1,2,2-TETRACHLOROETHANE	79-34-5
1,1,2,2-TETRAMETHYL CYCLOPROPANE	4127-47-3
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1
1,1,2-TRICHLORO-1-PROPENE	21400-25-9
1,1,2-TRICHLOROETHANE	79-00-5
1,1,2-TRIMETHYL CYCLOHEXANE	7094-26-0
1,1,3,5-TETRAMETHYL CYCLOHEXANE	TME1135CYHX
1,1,3-TRICHLOROPROPENE	2567-14-8
1,1,3-TRIETHOXYBUTANE	ETOX113BT
1,1,3-TRIMETHYL CYCLOHEXANE	3073-66-3
1,1,3-TRIMETHYL-2-(3-METHYLPENTYL)-CYCLOHEXANE	TM113MPCHX
1,13-TETRADECADIENE	21964-49-8
1,1-DICHLORO-2-PROPANONE	513-88-2
1,1-DICHLOROETHANE	75-34-3
1,1-DICHLOROETHANE-D4	DCA11D4
1,1-DICHLOROETHENE	75-35-4
1,1-DICHLOROPROPANE	78-99-9
1,1-DICHLOROPROPENE	563-58-6
1,1-DIMETHYL PROPYL BENZENE	DM11PRBZ
1,1-DIMETHYL-3-(A,A,A-TRIFLUORO-M-TOLYL)UREA	2164-17-2
1,1-DIMETHYL-3-PHENYLUREA TRICHLOROACETATE	4482-55-7
1,1-DIMETHYLCYCLOHEXANE	590-66-9
1,1-DIMETHYLETHYL HYDROPEROXIDE	75-91-2
1,1-DIMETHYLHYDRAZINE	57-14-7
1,1-DIPHENYLHYDRAZE	DPHY11
1,1'-OXYBIS(2-ETHOXY)ETHANE	112-36-7
1',1'-OXYBIS-1-PROPENE	OX11PR
1,1'-SULFONYLBIS[4-BENZENE	BZ4SB
1,2 AND 1,4-DICHLOROBENZENE	DBZ1214
1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN-C13	D12346789C13

chemical name	cas_rn
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN-C13	DF1234678C13
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN-C13	DD1234678C13
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN-C13	DF1234789C13
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN-C13	DF123478C13
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN-C13	DD123478C13
1,2,3,4,7-PENTACHLORODIBENZO-P-DIOXIN	39227-61-7
1,2,3,4-TETRACHLORO BENZENE	634-66-2
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN	30746-58-8
1,2,3,4-TETRACHLORODIBENZO-P-DIOXIN-C13	TCDD1234C13
1,2,3,4-TETRAHYDRO-5-NAPHTHALENE	TH1234NPH5
1,2,3,4-TETRAMETHYLBENZENE	488-23-3
1,2,3,5-TETRACHLORO BENZENE	634-90-2
1,2,3,5-TETRAMETHYLBENZENE	527-53-7
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN-C13	DF123678C13
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN-C13	DD123678C13
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN-C13	DF123789C13
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN-C13	DD123789C13
1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6
1,2,3,7,8-PENTACHLORODIBENZOFURAN-C13	DF12378C13
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN-C13	DD12378C13
1,2,3-PROPANETRIOL MONOACETATE	26446-35-5
1,2,3-TRICHLORO BENZENE	87-61-6
1,2,3-TRICHLOROPROPANE	96-18-4
1,2,3-TRICHLOROPROPENE	96-19-5
1,2,3-TRIMETHYL BENZENE	526-73-8
1,2,4,5-TETRACHLORO BENZENE	95-94-3
1,2,4,5-TETRAMETHYLBENZENE	95-93-2
1,2,4-TRICHLORO BENZENE	120-82-1
1,2,4-TRIMETHYLBENZENE	95-63-6
1,2,4-TRIMETHYL-CYCLOHEXANE	2234-75-5
1,2,4-TRITHIOLANE	289-16-7
1,2,7,8-TETRACHLORODIBENZOFURAN	58802-20-3
1,2,7,8-TETRACHLORODIBENZO-P-DIOXIN	TCDD1278
1,2,8,9-TETRACHLORODIBENZO-P-DIOXIN	TCDD1289
1,2-1-PHENANTHRENE CARBOXYLIC ACID	PHAN12CA
1,2-BENZENE DICARBOXYLIC ACID,BUTYL 2-METHYL PRO	B2MP12BZDA

chemical name	cas_rn
1,2-BENZENEDICARBOXYLIC ACID	88-99-3
1,2-BENZENEDICARBOXYLIC ACID, 3 NITR	N3BZDA
1,2-BENZENEDICARBOXYLIC ACID, BIS (4-)	BZDA12
1,2-BENZENEDICARBOXYLIC ACID, BUTYL	PHTAB
1,2-BENZENEDICARBOXYLIC ACID, DIHEPTYL ESTER	3648-21-3
1,2-BENZENEDICARBOXYLIC ACID, DIISOD	DISBZDA12
1,2-BENZENEDICARBOXYLIC ACID, DIISON	PHTAD
1,2-BENZENEDICARBOXYLIC ACID, ISODEE	ISBZDA12
1,2-BIS(2-CHLOROETHOXY)ETHANE	112-26-5
1,2-CYCLOHEXANEDIOL, TOTAL	931-17-9
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8
1,2-DIBROMO-DODECANE	DB12C12N
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4
1,2-DICHLORO-1,1,2-TRIFLUOROETHANE	354-23-4
1,2-DICHLORO-4-ISOCYANATOBENZENE	102-36-3
1,2-DICHLOROBENZENE	95-50-1
1,2-DICHLOROBENZENE-D4	2199-69-1
1,2-DICHLOROCYCLOHEXANE	DCCYHX12
1,2-DICHLOROETHANE	107-06-2
1,2-DICHLOROETHANE-D4	17060-07-0
1,2-DICHLOROPROPANE	78-87-5
1,2-DICHLOROPROPYLENE	563-54-2
1,2-DICHLOROTETRAFLUOROETHANE	76-14-2
1,2-DIETHYL-3-METHYL-CYCLOHEXANE	61141808S
1,2-DIETHYLBENZENE	135-01-3
1,2-DIMETHYL-3-(1-METHYLETHYL)-CYCLOPENTANE	DM12ME3CYC5N
1,2-DIMETHYLHYDRAZINE	540-73-8
1,2-DIMETHYLNAPHTHALENE	573-98-8
1,2-DINITROBENZENE	528-29-0
1,2-DIPHENYLHYDRAZINE	122-66-7
1,2-NAPHTHOQUINONE	524-42-5
1,3,5-CYCLOHEPTATRIENE	544-25-2
1,3,5-TRICHLOROBENZENE	108-70-3
1,3,5-TRIMETHYL DECANE	TM135C10N
1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8
1,3,5-TRIMETHYL-CYCLOHEXANE	1839-63-0
1,3,5-TRINITROBENZENE	99-35-4
1,3,6,8-TETRACHLORODIBENZO-P-DIOXIN	33423-92-6
1,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	50585-46-1
1,3,7,9-TETRACHLORODIBENZO-P-DIOXIN	TCDD1379
1,3-BUTADIENE	106-99-0
1,3-BUTANEDIOL	107-88-0
1,3-CYCLOHEXADIEN-1-YL-BENZENE	CYH13YLBZ
1,3-DIBROMOPROPANE	109-64-8
1,3-DICHLORO-1,1,3,3-TETRAMETHYLDISILOXANE	2401-73-2
1,3-DICHLORO-2-PROPANOL	96-23-1

chemical_name	cas_rn
1,3-DICHLORO-3-PROPANOL	13DCPR3OH
1,3-DICHLOROBENZENE	541-73-1
1,3-DICHLOROPROPANE	142-28-9
1,3-DIETHYL BENZENE	141-93-5
1,3-DIHYDRO 2H-INDOL-2-ONE	59-48-3
1,3-DIIODOPENTANE	13DIIPTA
1,3-DIMETHYL-2-NITROBENZENE	81-20-9
1,3-DIMETHYLNAPHTHALENE	575-41-7
1,3-DINITROBENZENE	99-65-0
1,3-HEXADIEN-5-YNE	10420-90-3
1,4,6-TRIMETHYLNAPHTHALENE	2131-42-2
1,4,7,10,13,16-HEXAOXACYCLOOCTADECANE	17455-13-9
1,4-BENZENEDIOL	123-31-9
1,4-DICHLOR-2-ISCYANATOBENZENE	5392-82-5
1,4-DICHLOROBENZENE	106-46-7
1,4-DICHLOROBENZENE-D4	3855-82-1
1,4-DICHLOROBUTANE	110-56-5
1,4-DIETHYL BENZENE	105-05-5
1,4-DIFLUOROBENZENE	540-36-3
1,4-DIMETHYL CYCLO-OCTANE	PDMCYO
1,4-DIMETHYL-2-OCTADECYL-CYCLOHEXANE	DM14ODCYHX
1,4-DINITROBENZENE	100-25-4
1,4-DIOXANE (P-DIOXANE)	123-91-1
1,4-DIOXASPIRO [4.5] DECANE	177-10-6
1,4-DITHIANE	505-29-3
1,4-HEXADIENE	592-45-0
1,4-NAPHTHOQUINONE	130-15-4
1,4-OXATHIANE	15980-15-1
1,5-DIMETHYL NAPHTHALENE	571-61-9
1,5-OCTADIENE,7-METHYL-3-(1	OCT15M7
1,6-DIMETHYL-4-(1-METHYLETHYL)NAPHTHALENE	483-78-3
1,7-DIMETHYL NAPHTHALENE	575-37-1
1,8-DIHYDROXY-3-METHYL-9,10-ANTHRACENEDIONE	481-74-3
1,8-DIMETHYLNAPHTHALENE	569-41-5
1-[(4-NITRO P-2-NAPHTHALENOL	1NTP4NAPHL2
10-METHYL-EICOSANE	55193-56-1
11,14-EICOSADIENOIC ACID	EDNCA1114
11H-BENZOFUORENE	BZFL11H
1-ACETYL-2-THIOUREA	591-08-2
1-ACETYLPYRROLIDINE	4030-18-6
1-ADAMANTANOL	768-95-6
1-AZIDO-2-METHYLBENZENE	31656-92-5
1-BROMO-2-CHLOROETHANE	107-04-0
1-BROMO-3-CHLOROPROPANE	109-70-6
1-BROMO-4-FLUOROBENZENE BROMOFLUOROBENZENE)	460-00-4
1-BUTOXY-2-PROPANOL	5131-66-8

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1-BUTYL-2-PROPYL-CYCLOPENTANE	BT2PRCYP
1-CHLORO-2-FLUOROBENZENE	348-51-6
1-CHLORO-2-ISOCYANATOBENZENE	3320-83-0
1-CHLORO-3-FLUOROBENZENE	625-98-9
1-CHLORO-3-NITROBENZENE	121-73-3
1-CHLORO-4-FLUOROBENZENE	352-33-0
1-CHLOROCYCLOHEXENE-1	CLCYHEX
1-CHLOROHEPTANE	629-06-1
1-CHLOROHEXANE	544-10-5
1-CHLORONAPHTHALENE	90-13-1
1-CHLOROOCCTANE	111-85-3
1-CYCLOPROPYL-2-PROPANONE	CYPRPRN2
1-CYCLOPROPYL-ETHANONE	CYPRETC
1-DIMETHYLPHENYL-ETHANONES	DMPE
1-DOCOSANOL	661-19-8
1-DOTRIACONTANOL	DICETYL
1-ETHENYL-2-METHYL-BENZENE	611-15-4
1-ETHENYL-3-ETHYL BENZENE	ENE3BZ
1-ETHYL NAPHTHALENE	1127-76-0
1-ETHYL-2,3-DIMETHYLBENZENE	933-98-2
1-ETHYL-2,4,5-TRIMETHYL BENZENE	ETMBZ245
1-ETHYL-3-METHYL BENZENE	620-14-4
1-ETHYL-3-METHYL CYCLOPENTANE	EM3CYP
1-ETHYLIDENE-1H-INDEN	EDIND
1-ETHYNYL-4-METHYLBENZENE	766-97-2
1-FLUORO-DECANE	334-56-5
1-FLUORONAPHTHALENE	321-38-0
1-HEPTADECANAL	HPDCA
1-HEPTADECANOL	1454-85-9
1-HEPTADECANONE	HPDCN
1-HEXACOSANOL	506-52-5
1-HEXADECANAL	629-80-1
1-HEXADECENE	629-73-2
1-HEXADECYNE	629-74-3
1-HEXANOL	111-27-3
1-HEXENE, 5,5-DIMETHYL	7116-86-1
1-HEXYL-3-METHYL-CYCLOPENTANE	HXM3CYP
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1
1H-INDENE,2,3-DIHYDRO-1-MET	DH23MIN
1-ISOCYANATO-2-METHYL BENZENE	614-68-6
1-METHOXY-2-(METHOXY ETHANE	110-71-4
1-METHOXY-2-METHYL-2-PROPANOL	M2ME2P
1-METHYL ETHYL HYDROPEROXIDE	3031-75-2
1-METHYL-2(2-PROPENYL)-BENZENE	1587-04-8
1-METHYL-2(PROPENYL)BENZENE	MP2BZ
1-METHYL-2-PROP CYCLOHEXANE	ME2PCHX

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1-METHYL-2-PYRROLIDINE	1M2PYROLDINE
1-METHYL-3-(2-METHYL PROPYL)-CYCLOPENTANE	M32MPRCYC5N
1-METHYL-3-PROPYL-CYCLOHEXANE	MPR3CYHX
1-METHYL-4-(1-METHYLETHYL)-7-OXABICYCLO[2.2.1]H...	MME4OX7H
1-METHYL-4-(2-PROPENYL)BENZENE	3333-13-9
1-METHYLETHYL ESTER ACETIC ACID	METEEAA
1-METHYLNAPHTHALENE	90-12-0
1-METHYLPHENYL-ETHANONES	MPE
1-NAPHTHYLAMINE	134-32-7
1-N-BUTYL-3-(3,4-DICHLOROPHENYL)-1-METHYLUREA	555-37-3
1-NONADECENE	18435-45-5
1-NONANAL	124-19-6
1-OCTADECANOL	112-92-5
1-PENTADECANOL	629-76-5
1-PENTADECENE	13360-61-7
1-PENTENE	109-67-1
1-PENTENYLBENZENE	PTNLBZ
1-PHENANTHRENECARBOXYLIC ACID	5835-26-7
1-PROPENYL CYCLOHEXANE	PRCYC6N
1-TRIDECENE	2437-56-1
1-TRIDECYN-4-OL	TDCN4
2-(1-METHYL 1,1-BICYCLOHEXYL)	MEBCYHX2
2-(1-METHYLETHOXY) PHENOL METHYLCARBAMATE	114-26-1
2-(2-BUTOXY)ETHOXYETHYL ACETATE	124-17-4
2-(2-BUTOXYETHOXY)ETHANOL	112-34-5
2-(2-METHOXY ETHOXY)-ETHANOL	111-77-3
2-(3H)-BENZOTHAZOLONE	934-34-9
2-(9-OCTADECENYLOXY)-(Z)-ETHANOL	ODC9ET
2-(METHYLTHIO) BENZOTHAZOLE	615-22-5
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	HPCBP2233446
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	OCBP22334566
2,2,3,3-TETRAMETHYL BUTANE	594-82-1
2,2,3,3-TETRAMETHYL-HEXANE	13475-81-5
2,2,3,4,6-PENTACHLOROBIPHENYL	PECBPH22346
2,2,3,4-TETRAMETHYL PENTANE	1186-53-4
2,2,3-TRIMETHYL CYCLOBUTANONE	TM223CBT
2,2,3-TRIMETHYL PENTANE	564-02-3
2,2,4,4,5,6-HEXACHLOROBIPHENYL	HXCBPH224456
2,2,4,4-TETRACHLOROBIPHENYL	TECBPH2244
2,2,4,4-TETRAMETHYL PENTANE	1070-87-7
2,2,4,6,6-PENTAMETHYL HEPTANE	13475-82-6
2,2,4-TRIMETHYL DECANE	TM224C10N
2,2,4-TRIMETHYL HEPTANE	14720-74-2
2,2,4-TRIMETHYL OXEPANE	TM224OXP
2,2,4-TRIMETHYL-1,3-DIOXOLANE	1193-11-9
2,2,4-TRIMETHYLPENTANE	540-84-1

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2,2,5,5-TETRA METHYL HEXANE	1071-81-4
2,2,5-TRIMETHYL HEXANE	3522-94-9
2,2,6-TRIMETHYL OCTANE	TM226C8N
2,2,7,7-TETRAMETHYLOCTANE	1071-31-4
2,21-DIMETHYL DOCOSANE	DMC22N221
2,2-DICHLOROPROPANE	594-20-7
2,2-DIMETHYL HEXANE	590-73-8
2,2-DIMETHYL PROPANE	463-82-1
2,2-DIMETHYL UNDECANE	DM22C11N
2,2-DIMETHYL-, (E)3-HEXENE	DM22EHX3
2,2-DIMETHYL-1,3-PROPANEDIOL	126-30-7
2,2-DIMETHYL-3-PENTANONE	564-04-5
2,2-DIMETHYLBUTANE	75-83-2
2,3 AND 2,4-DIMETHYLANILINE	DMANIL2324
2,3,3-TRIMETHYL HEXANE	16747-28-7
2,3,3-TRIMETHYLPENTANE	560-21-4
2,3,4,5,6-PENTACHLOROANISOLE	1825-21-4
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN-C13	DF234678C13
2,3,4,6-TETRACHLOROPHENOL	58-90-2
2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4
2,3,4,7,8-PENTACHLORODIBENZOFURAN-C13	DF23478C13
2,3,4-TRIFLUOROTOLUENE	234TFBZME
2,3,4-TRIMETHYL HEPTANE	TM234C7N
2,3,4-TRIMETHYL HEXANE	921-47-1
2,3,4-TRIMETHYLPENTANE	565-75-3
2,3,4-TRIMETHYLPHENANTHRENE	TMPHAN234
2,3,5,6-TETRACHLOROPHENOL	935-95-5
2,3,5-TRIMETHYL HEPTANE	TMC7N235
2,3,5-TRIMETHYL HEXANE	1069-53-0
2,3,6-TRICHLOROPHENOL	933-75-5
2,3,6-TRIMETHYL HEPTANE	4032-93-3
2,3,6-TRIMETHYL PHENOL	2416-94-6
2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9
2,3,7,8-TETRACHLORODIBENZOFURAN-C13	TCDF2378C13
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN-C13	TCDD2378C13
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN-CL37	TCDD2378CL37
2,3,7-TRIMETHYLOCTANE	TM237C8N
2,3,8-TRIMETHYL DECANE	TM238C10N
2,3-BENZOFURAN	271-89-6
2,3-BIS[1-METHYL ETHYL OXIRANE	MEOXR23
2,3-BUTANEDIOL	513-85-9
2,3-DECAHYDRO-1,2-DIMETHYL 1H-INDENE	DH23DM12IN1H
2,3-DICHLOROBIPHENYL	16605-91-7
2,3-DICHLOROPHENOL	576-24-9

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2,3-DICHLOROPROPENE	78-88-6
2,3-DIHYDRO-1,6-DIMETHYL-1H-INDENE	DH23DM16IN
2,3-DIHYDRO-1H-INDEN-1-ONE	83-33-0
2,3-DIHYDRO-1H-INDENE	496-11-7
2,3-DIHYDRO-2-METHYL BENZOFURAN	1746-11-8
2,3-DIHYDRO-4,7-D 1H-INDENE	DH23IN47
2,3-DIHYDRO-4-METHYL 1H INDENE	DH23M4IN
2,3-DIMETHYL BUTANE	79-29-8
2,3-DIMETHYL HEXANE	584-94-1
2,3-DIMETHYL NAPHTHALENE	581-40-8
2,3-DIMETHYL NONADECANE	DMC19N23
2,3-DIMETHYL NONANE	DM23C9N
2,3-DIMETHYL OCTANE	7146-60-3
2,3-DIMETHYL PENTANE	565-59-3
2,3-DIMETHYL PHENOL	526-75-0
2,3-DIMETHYL-1-PENTENE	3404-72-6
2,3-DIMETHYL-2-PENTENE	10574-37-5
2,3-PENTANEDIONE	600-14-6
2,4 DB	94-82-6
2,4,4-TRIMETHYL HEXANE	16747-30-1
2,4,5,6-TETRACHLORO-META-XYLENE	877-09-8
2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	93-76-5
2,4,5-TRICHLOROBIPHENYL	15862-07-4
2,4,5-TRICHLOROPHENOL	95-95-4
2,4,5-TRIMETHYLANILINE	137-17-7
2,4,6-TRIBROMOBIPHENYL	PHEN2BR246
2,4,6-TRIBROMOPHENOL	118-79-6
2,4,6-TRICHLOROPHENOL	88-06-2
2,4,6-TRIMETHYL BENZOIC ACID	480-63-7
2,4,6-TRIMETHYL OCTANE	TM246C8N
2,4,6-TRINITROTOLUENE	118-96-7
2,4-BIS(1,1-DIMETHYLETHYL) PHENOL	96-76-4
2,4-D (DICHLOROPHENOXYACETIC ACID)	94-75-7
2,4-DIAMINO-6-NITROTOLUENE	6629-29-4
2,4-DIAMINOTOLUENE	95-80-7
2,4-DICHLOROBENZALDEHYDE	874-42-0
2,4-DICHLOROPHENOL	120-83-2
2,4-DICHLOROPHENYLACETIC ACID	19719-28-9
2,4-DIHYDROXY-6-METHYL METHYL BENZOIC ACID	DHYD24M6MBZA
2,4-DIMETHYL DECANE	DM24C10N
2,4-DIMETHYL HEPTANE	2213-23-2
2,4-DIMETHYL PENTANE	108-08-7
2,4-DIMETHYL-1,3-DIOXOLANE	DM24DXL3
2,4-DIMETHYL-1-HEPTANOL	DM24HPT
2,4-DIMETHYL-3-HEPTANONE	18641-71-9
2,4-DIMETHYL-3-PENTANONE	565-80-0

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2,4-DIMETHYLPHENOL	105-67-9
2,4-DINITROFLUOROBENZENE	70-34-8
2,4-DINITROPHENOL	51-28-5
2,4-DINITROTOLUENE	121-14-2
2,4-DIPHENYLHYDRAZINE	DPHY24
2,4-IMIDAZOLIDINEDIONE	461-72-3
2,4-PENTANEDIONE	123-54-6
2,5,6-TRIMETHYL DECANE	TM256C10N
2,5,9-TRIMETHYL DECANE	TM259C10N
2,5-DICHLOROPHENOL	583-78-8
2,5-DIHYDRO-2,5-DIMETHOXY FURAN	332-77-4
2,5-DIMETHYL DECANE	17312-50-4
2,5-DIMETHYL DODECANE	DM25C12N
2,5-DIMETHYL HEPTANE	2216-30-0
2,5-DIMETHYL HEXANE	592-13-2
2,5-DIMETHYL NONANE	DM25C9N
2,5-DIMETHYL OCTANE	DM25C8N
2,5-DIMETHYL PHENOL	95-87-4
2,5-DIMETHYL-2-HEXENE	3404-78-2
2,5-DIMETHYLANILINE	95-78-3
2,5-DIMETHYLBENZALDEHYDE	5779-94-2
2,5-DIMETHYLFURAN	625-86-5
2,5-DI-TERT-PENTYLHYDROQUINONE	79-74-3
2,5-PYRROLIDINEDIONE,3-[1-(PYRL25D3
2,6,10,14-TETRAMETHYL HEPTADECANE	TMHPC10N
2,6,10,14-TETRAMETHYL PENTADECANE	1921-70-6
2,6,10,14-TETRAMETHYLHEXADECANE	638-36-8
2,6,10,15-HEPTADECANE	HD261015
2,6,10-TRIMETHYL TETRADECANE	TM2610C14N
2,6,10-TRIMETHYLDODECANE	3891-98-3
2,6,6-TRIMETHYL DECANE	TM266C10N
2,6,6-TRIMETHYL OCTANE	TM266C8N
2,6,7-TRIMETHYL DECANE	TM267C10N
2,6,8-TRIMETHYL DECANE	TM268C10N
2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYLPHENOL	128-37-0
2,6-D (DICHLOROPHENOXYACETIC ACID)	D26
2,6-DIAMINO-4-NITROTOLUENE	59229-75-3
2,6-DICHLOROBENZOIC ACID	50-30-6
2,6-DICHLOROBENZONITRILE	1194-65-6
2,6-DICHLOROPHENOL	87-65-0
2,6-DIMETHYL DODECANE	DM26C12N
2,6-DIMETHYL HEPTADECANE	26DMHD
2,6-DIMETHYL HEPTANE	1072-05-5
2,6-DIMETHYL NONANE	DM26C9N
2,6-DIMETHYL OCTANE	2051-30-1
2,6-DIMETHYL PHENOL	576-26-1

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2,6-DIMETHYL UNDECANE	17301-23-4
2,6-DIMETHYLANILINE	87-62-7
2,6-DINITROTOLUENE	606-20-2
2,6-TOLUENEDIAMINE	823-40-5
2,7,10-TRIMETHYL DODECANE	74645-98-0
2,7-DIMETHYL NAPHTHALENE	582-16-1
2,7-DIMETHYL-1-OCTANOL	DM27OCTOH
2,9-DIMETHYL DECANE	DM29C10N
2,9-DIMETHYL UNDECANE	DM29C11N
2-[2-(2-ETHOXYETHOXY)ETHOXY]-ETHANOL	112-50-5
22'METHYLENE BIS[6(1,1-DIMETHYL-ETHYL)4	MB22DME6
2-ACETYLAMINOFLUORENE	53-96-3
2-AMINO-4,6-DINITROTOLUENE	35572-78-2
2-AMINOANTHRAQUINONE	117-79-3
2-AMINOETHANOL	141-43-5
2-AMINONAPHTHALENE (BETA NAPHTHYLAMINE)	91-59-8
2-AMINO-P-CRESOL	95-84-1
2-BROMO-1,3-CYCLOPENTANEDIONE	B2CYPE13
2-BROMO-1-CHLOROPROPANE	3017-95-6
2-BROMO-5-ETHYLNONANE	BR2E
2-BROMOHEPTANE	1974-04-5
2-BROMONAPHTHALENE	580-13-2
2-BROMO-OCTANE	557-35-7
2-BROMOPHENOL	95-56-7
2-BUTANOL,3-BROMO-,ACETATE	BR3ABTOH
2-BUTANOL,3-CHLORO ACETATE	CL3ABTOH2
2-BUTENE	107-01-7
2-BUTENOIC ACID	3724-65-0
2-BUTOXY-,PHOSPHATE ETHANOL	BTOX2PET
2-BUTYL-1,1,3-TRIMETHYLCYCLOHEXANE	BT2CYHX113T
2-BUTYL-1-OCTANOL	3913-02-8
2-CHLORO-1,3-BUTADIENE	126-99-8
2-CHLORO-4,5-DIMETHYLPHENOL	1124-04-5
2-CHLORO-5-METHYLPHENOL	615-74-7
2-CHLOROANTHRACENE	17135-78-3
2-CHLOROBIPHENYL	2051-60-7
2-CHLOROCYCLOHEXANOL	1561-86-0
2-CHLOROETHYL VINYL ETHER	110-75-8
2-CHLORONAPHTHALENE	91-58-7
2-CHLOROPHENOL	95-57-8
2-CHLOROPHENOL-D4	93951-73-6
2-CHLOROPHOSPHATE ETHANOL	CLP2ET
2-CHLOROTOLUENE	95-49-8
2-CYCLO HEXENE-1-OL	822-67-3
2-CYCLOHEXEN-1-ONE	930-68-7
2-CYCLOHEXEN-1-ONE,3-(2-BUT	CYHX2B2

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2-CYCLOHEXYL EICOSANE	CYHE2C20N
2-CYCLOHEXYL-4,6-DINITROPHENOL	131-89-5
2-CYCLOHEXYL-DECANE-2-CYCLOHEXYL	CH2C10N2CH
2-DECENAL, (E)-	3913-71-1
2-ETHENYL-6-METHYL-PYRAZINE	EN2M6PYZ
2-ETHYL 1-DECANOL	E2DC
2-ETHYL HEXYL DIPHEN PHOSPHORIC ACID	E2HXDPHA
2-ETHYL-1,3-DIMETHYL BENZENE	2870-04-4
2-ETHYL-1,3-HEXANEDIOL	94-96-2
2-ETHYL-1,4-DIMETHYL BENZENE	1758-88-9
2-ETHYL-1-BUTANOL	97-95-0
2-ETHYL-1-HEXANOL	104-76-7
2-ETHYL-2-(HYDROXYMETHYL)-1,3-PROPANEDIOL	77-99-6
2-ETHYL-4-METHYL-1,3-DIOXOLANE	4359-46-0
2-ETHYL-4-METHYLPHENOL	E2MP4
2-ETHYL-5-METHYLPHENOL	E2MP5
2-ETHYL-6-METHYLPHENOL	E2MP6
2-ETHYLBUTYRALDEHYDE	97-96-1
2-ETHYLHEXANOIC ACID	149-57-5
2-ETHYLHEXYL ACETATE	103-09-3
2-ETHYLHEXYL ACRYLATE	103-11-7
2-ETHYLHEXYL ADIPATE	4337-65-9
2-ETHYLHEXYL ALDEHYDE	123-05-7
2-FLUORO-4-NITROPHENOL	21571-34-6
2-FLUOROBIPHENYL	321-60-8
2-FLUOROPHENOL	367-12-4
2-HEPTADECANONE	2922-51-2
2-HEPTANONE	110-43-0
2-HEXANONE	591-78-6
2-HEXEN-1-OL	HXN2OL
2-ISOHEXYL-6-METHYL-1-HEPTANE	IS2M6C7N
2-ISOPROPYL-1,3-DIMETHYL-CYCLOPENTANE	IP2DMCYP13
2-METHOXYPHENOL	90-05-1
2-METHYL BUTANE	78-78-4
2-METHYL BUTANOIC ACID	116-53-0
2-METHYL CYCLOPENTANOL	24070-77-7
2-METHYL DECANE	6975-98-0
2-METHYL HEXANE	591-76-4
2-METHYL HEXANOIC ACID	4536-23-6
2-METHYL NONANE	871-83-0
2-METHYL P OCTADECANOIC ACID	ME2OCPA
2-METHYL PENTADECANE	1560-93-6
2-METHYL PROPANE	75-28-5
2-METHYL PROPANOIC ACID	79-31-2
2-METHYL TRIDECANE	1560-96-9
2-METHYL UNDECANE	31807-55-3

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2-METHYL-,2 PROPANOIC ACID	ME2PA2
2-METHYL-1(1,1-DIMETHYLETHYL PROPANOIC ACID)	2MDMEPA
2-METHYL-1,3-BUTADIENE (ISOPRENE)	78-79-5
2-METHYL-1-BUTANOL	137-32-6
2-METHYL-1-HEPTENE	15870-10-7
2-METHYL-1-PENTENE	763-29-1
2-METHYL-1-PENTENE-3-OL	2088-07-5
2-METHYL-1-UNDECENE	18516-37-5
2-METHYL-2-PENTENE	625-27-4
2-METHYL-2-PROPENOIC ACID, DODECYL ESTER	142-90-5
2-METHYL-3-HEPTANONE	13019-20-0
2-METHYL-3-PENTANONE	565-69-5
2-METHYL-3-PENTEN 1-OL	M2PN3
2-METHYL-4-(2-METHYLPROPYL)-CYCLOPENTANONE	M24MPR2CYP
2-METHYL-5-ETHYL PYRIDINE	104-90-5
2-METHYL-8-PROPYLDODECANE	M2P8C12N
2-METHYL-A-HEXADECANOL	M2HXDC
2-METHYLBENZENESULFONAMIDE	88-19-7
2-METHYLBENZENESULFONYLCHLORIDE	133-59-5
2-METHYL-BENZONITRILE	529-19-1
2-METHYL-DODECANE	1560-97-0
2-METHYL-EICOSANE	M2C20N
2-METHYL-ETHENYL ESTER-2-PROPENOIC ACID	2MEE2PA
2-METHYL-HEPTANE	592-27-8
2-METHYLNAPHTHALENE	91-57-6
2-METHYLOCTANE	3221-61-2
2-METHYLPENTALDEHYDE	ME2PEHYDE
2-METHYL-PENTANE	107-83-5
2-METHYLPHENOL (O-CRESOL)	95-48-7
2-NITROANILINE	88-74-4
2-NITROPHENOL	88-75-5
2-NITROPROPANE	79-46-9
2-NITROTOLUENE	88-72-2
2-NITROTOLUENE AND 4-NITROTOLUENE (TOTAL)	NBZME24
2-NONADECANONE	629-66-3
2-NONANONE	821-55-6
2-NONENAL	2463-53-8
2-OCTANOL	123-96-6
2-PENTADECANONE	2345-28-0
2-PENTANOL	6032-29-7
2-PHENYL NAPHTHALENE	612-94-2
2-PHENYL-AZETIDINE	PHAZT2
2-PICOLINE (ALPHA-PICOLINE)	109-06-8
2-PIPERIDINONE	675-20-7
2-PROPEN-1-OL	107-18-6
2-PROPENYL BENZENE	300-57-2

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2-PROPENYL-CYCLOHEXANE	2114-42-3
2-PROPOXY-ETHANOL	2807-30-9
2-PROPYL-1-HEPTANOL	10042-59-8
2-PROPYLFURAN	4229-91-8
2-PROPYN-1-OL	107-19-7
2-PYRROLIDINONE	616-45-5
2-TRIDECANONE	593-08-8
2-UNDECENE (Z)-	821-96-5
3-(2-PHENYLETHYL)PHENOL	33675-75-1
3-(3,4-DICHLOROPHENYL)-1,1-DIMETHYLUREA	330-54-1
3-(3,4-DICHLOROPHENYL)-1-METHOXY-1-METHYLUREA	330-55-2
3-(CHLOROMETHYL) PYRIDINE	CLM3PYRDN
3-(P-CHLOROPHENYL)-1,1-DIMETHYLUREA	150-68-5
3-(P-CHLOROPHENYL)-1-1-DIMETHYLUREA	MONURONTCA
3,3,4-TRIMETHYL HEXANE	16747-31-2
3,3,5-TRIMETHYL-1-HEXENE	4316-65-8
3,3'-DICHLOROBENZIDINE	91-94-1
3,3'-DIMETHOXYBENZIDINE	119-90-4
3,3-DIMETHYL-1-HEXENE	3404-77-1
3,3'-DIMETHYLBENZIDINE	119-93-7
3,3-DIMETHYLOCTANE	4110-44-5
3,3-OXYBIS-1-PROPENE	557-40-4
3,3-THIOBIS PROPANOIC ACID	111-17-1
3,4-DICHLOROPHENOL	95-77-2
3,4-DIH 1(2H) NAPHTHALENONE	D34NAPHN2H
3,4-DIMETHYL BENZOIC ACID	619-04-5
3,4-DIMETHYL-1-DECENE	DM34DCN
3,4-DIMETHYL-2-PENTENE	24910-63-2
3,4-DIMETHYLANILINE	95-64-7
3,4-DINITROTOLUENE	610-39-9
3,5,6-TRIS 2(1H)-PYRAZINONE	TPYR356
3,5-DIAMINOBENZOIC ACID	535-87-5
3,5-DICHLOROBENZOIC ACID	51-36-5
3,5-DIMETHYL OCTANE	15869-93-9
3,5-DIMETHYL PHENOL	108-68-9
3,5-DIMETHYL-1-ETHYLBENZENE	934-74-7
3,5-DIMETHYL-4-(METHYLTHIO) PHENYL	2032-65-7
3,5-DIMETHYLANILINE	108-69-0
3,5-DIMETHYLBENZOIC ACID	499-06-9
3,5-DINITROANILINE	618-87-1
3,5-HEXADIEN-2-OL	HXD352OL
3,6-DIMETHYL OCTANE	15869-94-0
3,6-DIMETHYL UNDECANE	DM36C11N
3,6-DIMETHYLDECANE	DM36C10N
3,6-DIMETHYLPHENANTHRENE	1576-67-6
3,7,11-TRIMETHYL-2,6,10-DODECATRIEN-1-OL	4602-84-0

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3,7-DIMETHYL UNDECANE	DM37C10N
3,7-DIMETHYLNONANE	DMN37
3,8-DIMETHYL UNDECANE	DM38C11N
3,9-DIMETHYL-UNDECANE	DM39C11N
3-AMINO-9-ETHYLCARBAZOLE	132-32-1
3-BROMODECANE	BRC10N3
3-BROMOHEXANE	3377-87-5
3-CHLOROCYCLOHEXENE	CLCYHX
3-CHLOROPHENOL	108-43-0
3-CHLOROPROPANENITRILE	542-76-7
3-CHLOROTOLUENE	108-41-8
3-CYCLOHEXENE-1-METHANOL	CHX3MEOH
3-ETHYL HEPTANE	15869-80-4
3-ETHYL OCTANE	5881-17-4
3-ETHYL PENTANE	617-78-7
3-ETHYL TRIDECANE	E3C13N
3-ETHYL-1-OCTENE	3ETO
3-ETHYL-2,7-DIMETHYL OCTANE	E3ME27C8N
3-ETHYL-2-METHYL-HEPTANE	14676-29-0
3-ETHYL-4-4-DIMETHYL-2-PENTENE	E3DMPTN2
3-ETHYL-4-METHYL HEXANE	3074-77-9
3-ETHYL-5-METHYL HEPTANE	E3ME5C7N
3-FLUORO-4-NITROPHENOL	394-41-2
3-HEXADECENE (Z)	HXDCN3
3-HEXENE-2,5-DIONE	HX3DIN25
3-HYDROXYBENZOIC ACID	99-06-9
3-HYDROXYCARBOFURAN	16655-82-6
3-METHYL DECANE	13151-34-3
3-METHYL DODECANE	17312-57-1
3-METHYL OCTADECANE	M3OC10N
3-METHYL PHENANTHRENE	832-71-3
3-METHYL UNDECANE	M3C11N
3-METHYL-1,3-PENTADIENE	4549-74-0
3-METHYL-1-PENTENE	760-20-3
3-METHYL-2-HEPTANONE	2371-19-9
3-METHYL-2-PENTENE	922-61-2
3-METHYLBUTANOIC ACID	503-74-2
3-METHYLCHOLANTHRENE	56-49-5
3-METHYLHEPTANE	589-81-1
3-METHYLHEXANE	589-34-4
3-METHYL-NONANE	ME3C9N
3-METHYLPENTANE	96-14-0
3-METHYLPHENOL	108-39-4
3-METHYL-TRIDECANE	M3C13N
3-NITROANILINE	99-09-2
3-NITROTOLUENE	99-08-1

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3-OCTADECENE (E)	OCD
3-OCTADECYNE	OCDCYN3
3-PENTEN-2-ONE,4-METHOXY-	MTX4PN3ON2
3-PHENYL-1,1-DIMETHYLUREA	101-42-8
3-PICOLINE	108-99-6
3-TETRADECENE, (Z)	TDCEN
4 METHYL UNDECANE	ME4C11N
4-(1,1,3,3-TETRAMETHYLBUTYL)	TMB4
4-(1,1-DIMETHYL PHENOL)	DMPH4
4-(1-METHYLETHYL)-HEPTANE	ME4C7N
4-(ACETYLOXY)2-BUTANONE	10150-87-5
4-(DIMETHYLAMINO)-3-METHYLPHENOLMETHYL-	2032-59-9
4,4'-BUTYLIDENE BIS[2-(1,1-DIMETHYLETHYL)]5-M-ETH	BBDMEEP
4,4'-BUTYLIDENE PHENOL	BUT44PH
4,4'-DIBROMOBIPHENYL	92-86-4
4,4'-DIBROMOOCTAFLUOROBIPHENYL	10386-84-2
4,4'-DICHLOROBIPHENYL	2050-68-2
4,4-DIMETHYL-1-PENTEN	762-62-9
4,4'-METHYLENE DIANILINE	101-77-9
4,4'-METHYLENE-BIS(2-CHLOROANILINE)	101-14-4
4,4'-METHYLENEBIS(N,N-DIMETHYLANILINE	101-61-1
4,4'-OXYDIANILINE	101-80-4
4,5-DIMETHYL-2,6-OCTADIENE	DM45OCD26
4,5-NONADIENE	NDN45
4,6-DIMETHYL DODECANE	DM46C12N
4,6-DIMETHYL UNDECANE	DM46C11N
4,6-DINITRO-2-METHYLPHENOL	534-52-1
4,7-DIMETHYL UNDECANE	17301-32-5
4,8-DIMETHYL TRIDECANE	DM48C13N
4-AMINO-2,6-DINITROTOLUENE	19406-51-0
4-AMINOBIIPHENYL (4-BIPHENYLAMINE)	92-67-1
4-AMINO-M-CRESOL	2835-99-6
4B,5,6,7,8,8A,9,10-OCTAHYDRO-4B,8,8-TRIMETHYL-1-(1	OTP
4-BROMO-3,5-DIMETHYLPHENYL	B4DMP35MC
4-BROMOCHLOROBENZENE	106-39-8
4-BROMOPHENYL PHENYL ETHER	101-55-3
4-BUTOXY BUTANOIC ACID	55724-73-7
4-CHLORO-1,2-PHENYLENEDIAMINE	95-83-0
4-CHLORO-1,3-PHENYLENEDIAMINE	5131-60-2
4-CHLORO-2-BUTYNYL M-CHLOROCARBANILATE	101-27-9
4-CHLORO-2-METHYLPHENOL	1570-64-5
4-CHLORO-3-METHYLPHENOL	59-50-7
4-CHLOROANILINE	106-47-8
4-CHLOROPHENOL	106-48-9
4-CHLOROPHENYL PHENYL ETHER	7005-72-3
4-CHLORORESORCINOL	95-88-5

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4-CHLOROTOLUENE	106-43-4
4-DIMETHYLAMINO-3,5-XYL N-METHYLCARBAMATE	315-18-4
4-ETHYL 2-OCTENE	4ETO2
4-ETHYL 3-HEPTANE	E4C7N3
4-ETHYL OCTANE	15869-86-0
4-ETHYL-1,2-DIMETHYL BENZENE	934-80-5
4-ETHYL-2-METHYL HEXANE	3074-75-7
4-ETHYLTOLUENE	622-96-8
4-FLUORO-1,1'-BIPHENYL	324-74-3
4H-CYCLOPENTA[DEF]PHENANTHRENE	203-64-5
4-HYDROXY-3-METHYLBENZALDEHYDE	15174-69-3
4-HYDROXYBENZOIC ACID	99-96-7
4-HYDROXYPHENYL ESTER THIOCYCANIC ACID	HYP4ETC
4-ISOPROPYL HEPTANE	IPR4C7N
4-METHOXYPHENOL	150-76-5
4-METHYL CYCLOHEXANOL	589-91-3
4-METHYL DECANE	2847-72-5
4-METHYL HEXADECANE	M4C16N
4-METHYL-2-HEPTANONE	6137-06-0
4-METHYL-4-PENTEN-2-ONE	M4PTN4
4-METHYLBENZENESULFONAMIDE	70-55-3
4-METHYLBENZENESULFONYLCHLORIDE	98-59-9
4-METHYLBENZOYL CHLORIDE	874-60-2
4-METHYLDIBENZOFURAN	7320-53-8
4-METHYLHEPTANE	589-53-7
4-METHYL-IH-PYRAZOLE	M4PYRZ
4-METHYLNAPHTHALENE	4-90-12-0
4-METHYLPHENOL (P-CRESOL)	106-44-5
4-METHYLTRIDECANE	METD
4-NITROANILINE	100-01-6
4-NITROBIPHENYL	92-93-3
4-NITROPHENOL	100-02-7
4-NITROQUINOLINE-N-OXIDE	56-57-5
4-NITROTOLUENE	99-99-0
4-NONYL PHENOL	104-40-5
4-OCTENOIC ACID, 6-ETHYL-3-HYDROXY-3,7-DIMETHYL-,M	EHDMMOA
4-OXIDE 1,4-OXATHIANE	OX4OXAT14
4-PENTEN-2-OL	625-31-0
4-PHENYL-OXAZOLE	PH4OXZ
4-PICOLINE	108-89-4
4-PROPYL DECANE	PR4C10N
4-PROPYL HEPTANE	3178-29-8
4-PROPYL-3-HEPTENE	4485-13-6
4-TERT-BUTYLPHENOL	98-54-4
4-TETRAMETHYLBUTYL-PHENOL	TMB4PH
5-(1-METHYLPROPYL)NONANE	MEPR5C9N

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5-(ACETYLOXY)-2-PENTANONE	5185-97-7
5,5-DIMETHYL-2-(5H)-FURANONE	DM55FUR25H
5,5-DIPHENYLHYDANTOIN	57-41-0
5,6-DIMETHYL UNDECANE	DM56C11N
5,7-DIMETHYL UNDECANE	DM57C11N
5-AMINO-O-CRESOL	2835-95-2
5-BROMO-2-(P-FLUOROPHENOXY ANILINE)	BR5FLPPAN
5-BUTYL NONANE	BC9N5
5-CHLORO-2-METHYLANILINE	95-79-4
5-EICOSENE (E)-	C20N5
5-ETHYL UNDECANE	E5C11N
5-ETHYL-2-METHYL HEPTANE	E5ME2C7N
5-ETHYL-2-METHYL OCTANE	E5ME2C8N
5-HYDROXYDICAMBA	HYDDICAM
5-METHOXY-2-PENTANONE	MTX5PN2
5-METHYL-2-(1-METHYLETHYLIDENE)-CYCLOHEXANONE	M5METN2CYH
5-METHYL-2-UNDECANE	ME5C11N2
5-METHYLUNDECANE	ME5C11N
5-NITROACENAPHTHENE	602-87-9
5-NITRO-O-ANISIDINE	99-59-2
5-NITRO-O-TOLUIDINE	99-55-8
5-OCTADECENAL	OCTDEC5
5-OCTADECENE (E)	OCD5
5-PROPYL DECANE	PR5C10N
5-PROPYL TRIDECANE	PR5C13N
6-(ACETYLOXY)2-HEXANONE	AC6HXN2
6,10,14-TRIMETHYL-2-PENTADECANONE	502-69-2
6,6-DIMETHYL UNDECANE	DM66C11N
6,9-DIMETHYL TETRADECANE	DM69C14N
6-AMINO HEXANOIC ACID	60-32-2
6-ETHYL-2-METHYL DECANE	E6ME2C10N
6-ETHYL-2-METHYL OCTANE	E6ME2C8N
6H,8H-BENZO[10,11]CHRYSENO [1	B68HCHRY
6-METHYL-UNDECANE	ME6C11N
6-OCTADECANOL	OCD6
6-OCTADECENAL	OCTDEC6
6-PHENYL-1,3,5-TRIAZINE-2,4-DIAMINE	91-76-9
6-PROPYL TRIDECANE	PR6C13N
7,12-DIMETHYLBENZ(A)ANTHRACENE	57-97-6
7-BUTYL-DOCOSANE	BC22N7
7H-DIBENZO(C,G)CARBAZOLE	194-59-2
7-HEXYL EICOSANE	HE7C20N
7-METHYL TRIDECANE	M7C13N
8-AMINO-2-NAPHTHALENOL	A8NAPHL2
8-METHYL,2-DECENE	DEC2M8
8-METHYL-1-DECENE	M8DCN

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9,10-ANTHRACENEDIONE	84-65-1
9,10-DIPHENYLANTHRACENE	1499-10-1
9,12-ANTHRACENE DIONE	ANTHD912
9,12-OCTADECADIEN-1-OL	OCTDNOL912
9,12-OCTADECADIENOIC A	OCTDNA912
91-METHYL PROPYL CYCLOHEXANE	MPCYHX91
9-BUTYL-DOCOSANE	BC22N9
9-DODECYL TETRA PHENANTHRENE	DCT9PHN
9-HEXADECANOIC ACID	2091-29-4
9H-FLUOREN-9-ONE	486-25-9
9-HYDROXY-2-NONANONE	HY9NON2
9-OCTADECANAL	OCTDC9
9-OCTADECANOIC ACID (Z), METHYL ESTER	MEOCDNA9
9-OCTADECENOIC ACID (Z)-,2,3-BIS(ACETYLOXY)PROPYL	OA9BA23PE
9-OCTYL-EICOSANE	O9C20N
9-OCTYL-HEPTADECANE	OHPC10N9
9-PHENYLANTHRACENE	602-55-1
ABATE	3383-96-8
ACENAPHTHENE	83-32-9
ACENAPHTHENE-D10	15067-26-2
ACENAPHTHYLENE	208-96-8
ACEPHATE	30560-19-1
ACETALDEHYDE	75-07-0
ACETALDEHYDE BENZENE	ACABZ
ACETATE 2-HEPTANOL	ACETHPT2
ACETONE	67-64-1
ACETONITRILE	75-05-8
ACETOPHENONE	98-86-2
ACETYLENE	74-86-2
A-CHLOROBENZYLIDENEMALONONITRILE	CSGAS
ACIDITY, TOTAL	ACID
ACIFLUORFEN	50594-66-6
ACROLEIN	107-02-8
ACRYLAMIDE	79-06-1
ACRYLONITRILE	107-13-1
ACTINIUM 227	14952-40-0
ACTINIUM 228	14331-83-0
ALACHLOR	15972-60-8
ALDICARB (SULFIDE, SULFOXIDE, AND SULFONE)	116-06-3
ALDICARB SULFONE	1646-88-4
ALDICARB SULFOXIDE	1646-87-3
ALDRIN	309-00-2
ALKALINITY, BICARBONATE (AS CaCO3)	ALKB
ALKALINITY, CARBONATE (AS CaCO3)	ALKC
ALKALINITY, HYDROXIDE (AS CaCO3)	ALKH
ALKALINITY, PHENOLPHTHALEIN	ALKP

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ALKALINITY, TOTAL (AS CaCO ₃)	ALK
ALKYL SUBSTITUTED BENZENES with 10th highest conc.	ALKYLSUBBENZE10
ALKYL SUBSTITUTED BENZENES with 2nd highest conc.	ALKYLSUBBENZE2
ALKYL SUBSTITUTED BENZENES with 3rd highest conc.	ALKYLSUBBENZE3
ALKYL SUBSTITUTED BENZENES with 4th highest conc.	ALKYLSUBBENZE4
ALKYL SUBSTITUTED BENZENES with 5th highest conc.	ALKYLSUBBENZE5
ALKYL SUBSTITUTED BENZENES with 6th highest conc.	ALKYLSUBBENZE6
ALKYL SUBSTITUTED BENZENES with 7th highest conc.	ALKYLSUBBENZE7
ALKYL SUBSTITUTED BENZENES with 8th highest conc.	ALKYLSUBBENZE8
ALKYL SUBSTITUTED BENZENES with 9th highest conc.	ALKYLSUBBENZE9
ALKYL SUBSTITUTED BENZENES with highest conc.	ALKYLSUBBENZE1
ALLOPREGNANE	ALPREG
ALLYL CHLORIDE (3-CHLOROPROPENE)	107-05-1
ALPHA (AS U)	ALPHAU
ALPHA 1-NAPHTHALENEPROPANOL	NPHPROPA
ALPHA BENZENE ACETIC ACID	ABZAA
ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6
ALPHA ENDOSULFAN	959-98-8
ALPHA METHYLSTYRENE	98-83-9
ALPHA, ALPHA DIMETHYLPHENETHYLAMINE	122-09-8
ALPHA, GROSS	ALPHA
ALPHA-CHLORDANE	5103-71-9
ALPHA-TERPINEOL	98-55-5
ALUMINUM	7429-90-5
AMERICIUM-241	86954-36-1
AMETRYN	834-12-8
AMITROLE	61-82-5
AMMONIUM	14798-03-9
AMOSITE	12172-73-5
AMYL ACETATE (MIXED ISOMERS)	628-63-7
AMYL ALCOHOL	71-41-0
A'-NEOGAMMACER-22(29)-EN-3-ONE	NEOGAM
ANHYDRIDE HEXANOIC ACID	ANHHXCA
ANILAZINE	101-05-3
ANILINE (PHENYLAMINE, AMINOBENZENE)	62-53-3
ANILINE-D5	4165-61-1
ANTHRACENE	120-12-7
ANTIMONY	7440-36-0
ANTIMONY-124	14683-10-4
ANTIMONY-125	14234-35-6
ARAMITE (TOTAL)	140-57-8
AROCHLOR 6050	PCT6050
ARSENIC	7440-38-2
ASBESTOS	132207-33-1
ASH, PERCENT	497-19-8
ATRATON	1610-17-9

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ATRAZINE	1912-24-9
AZINPHOS, METHYL (GUTHION)	86-50-0
AZOBENZENE	103-33-3
AZOBENZENE-D10	AZBZD10
AZULENE	275-51-4
BALAN	1861-40-1
BARIUM	7440-39-3
BARIUM/LANTHANUM-140	BA/LA-140
BARIUM-131	14914-75-1
BARIUM-133	13981-41-4
BARIUM-140	14798-08-4
BENOMYL	17804-35-2
BENTAZON	25057-89-0
BENZ[A]ANTHRACENE, 1-ME	BZAAM
BENZACEPHENANTHRYLENE	BZAANT
BENZAL CHLORIDE	98-87-3
BENZALDEHYDE	100-52-7
BENZANTHRACENE-7-ONE	BZANTH7
BENZANTHRACENONE	BZANTN
BENZANTHRONE	82-05-3
BENZENE	71-43-2
BENZENE PROPANOIC ACID	BZPA
BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES	BTEX
BENZENE, 1-METHYL-2-(1-METHYL	M2MBZ
BENZENEACETALDEHYDE, ALPHA-METHYL	93-53-8
BENZENEACETIC ACID	103-82-2
BENZENE-D6	1076-43-3
BENZENESULFOMANIDE, N-BUTYL-	BBZSM
BENZENETHIOL	108-98-5
BENZIDINE	92-87-5
BENZO(A)ANTHRACENE	56-55-3
BENZO(A)FLUORENE	238-84-6
BENZO(A)PYRENE	50-32-8
BENZO(B)FLUORANTHENE	205-99-2
BENZO(C)PHENANTHRENE	195-19-7
BENZO(G,H,I)FLUORANTHENE	203-12-3
BENZO(G,H,I)PERYLENE	191-24-2
BENZO(J)FLUORANTHENE	205-82-3
BENZO(K)FLUORANTHENE	207-08-9
BENZO[B]NAPHTHO[2,3-D]FURAN	243-42-5
BENZO[B]THIOPHENE	95-15-8
BENZO[E]PYRENE	192-97-2
BENZOFLUORANTHENE ISOMER	56832-73-6
BENZOFLUORENE ISOMER	61089-87-0
BENZOIC ACID	65-85-0
BENZONAPHTHOTHIOPHENE	BZNPHT

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BENZONITRILE	100-47-0
BENZOPHENONE	119-61-9
BENZOTHIAZOLE	95-16-9
BENZOTHIAZOLONE	BZTZLN
BENZOTHIOPHENE	11095-43-5
BENZOTRICHLORIDE	98-07-7
BENZYL ALCOHOL	100-51-6
BENZYL BUTYL PHTHALATE	85-68-7
BENZYL CHLORIDE	100-44-7
BERYLLIUM	7440-41-7
BERYLLIUM-7	13966-02-4
BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7
BETA ENDOSULFAN	33213-65-9
BETA, GROSS	BETA
BETA, GROSS (AS CS-137)	BETACS
BETA, GROSS (AS SR-90)	BETASR
BETA-CHLORDANE	5103-74-2
BICARBONATE	71-52-3
BIOCHEMICAL OXYGEN DEMAND, 20 DAY	BOD20
BIOLOGIC OXYGEN DEMAND, FIVE DAY	BOD5
BIPHENYL (DIPHENYL)	92-52-4
BIPHENYL-D10	1486-01-7
BIS-(1,1-DIMETHYLETHYL)-DIAZENE	927-83-3
BIS-(1-METHYL)HEXANEDIOIC ACID	MHAB
BIS(2-CHLOROETHOXY) METHANE	111-91-1
BIS(2-CHLOROETHOXY) METHANE-D8	BECEMD8
BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1
BIS(2-CHLOROISOPROPYL) ETHER-D12	BIS2CIED12
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7
BIS-CHLOROMETHYLETHER	542-88-1
BISMUTH	7440-69-9
BISMUTH-207	13982-38-2
BISMUTH-212	14913-49-6
BISMUTH-214	14733-03-0
BISPHENOL A	80-05-7
BOLSTAR	35400-43-2
BORATE(1-), HYDROXYTRIPHENYL-, SODIUM, (T-4)	SHBOR
BORON	7440-42-8
BROMACIL	314-40-9
BROMIDE	24959-67-9
BROMOBENZENE	108-86-1
BROMOCHLOROBENZENE	694-80-4
BROMOCHLORODIFLUOROMETHANE	353-59-3
BROMOCHLOROMETHANE	74-97-5
BROMOCYCLOHEXANE	108-85-0

chemical_name	cas_rn
BROMODICHLOROMETHANE	75-27-4
BROMOETHANE	74-96-4
BROMOFORM	75-25-2
BROMOMETHANE	74-83-9
BROMOXYNIL	1689-84-5
BULK DENSITY OF SOILS	BULKDENSITY
BUTACHLOR	23184-66-9
BUTANE	106-97-8
BUTANE, 2-METHYOXY-3-M	MOX2M3BT
BUTANOIC ACID	107-92-6
BUTANOIC ACID,2-ETHYL-3-OXO,METHYL	E2OX3MBTA
BUTYL CELLOSOLVE PHOSPHATE	39454-62-1
BUTYL CYCLOHEXANE	1678-93-9
BUTYL HEXADECANOATE	111-06-8
BUTYLATE	2008-41-5
BUTYLTRIMETHYLCYCLOHEXANE	BTMCYHX
C10-BICYCLOPARAFFINS	BCYPFIN
C10H20 ISOMER	C10H20
C10H22	C10H22
C2 CYCLOHEXANE(S)	CHXNC2
C2-ALKYLBENZENES	ABZC2
C2-NAPHTHALENE	NPHC2
C3 BENZENE	BZC3
C3 CYCLOHEXANE(S)	CHXNC3
C3-ALKYLBENZENES	ABZC3
C3-NAPHTHALENE	NPHC3
C4-ALKYLBENZENES	ABZC4
C4-NAPHTHALENE	NPHC4
C4-SUBSTITUTED CYCLOHEXANES	SUBCHC4
C5-NAPHTHALNE	NPHC5
C6 BENZAMIDE	BZDC6
C6H14 ISOMER	C6H14
CADMIUM	7440-43-9
CADMIUM-109	14109-32-1
CAFFEINE	58-08-2
CALCIUM	7440-70-2
CAMPHOR	76-22-2
CAPROLACTAM	105-60-2
CAPTAFOL	2939-80-2
CAPTAN	133-06-2
CARBAZOLE	86-74-8
CARBOFURAN	1563-66-2
CARBON DIOXIDE	124-38-9
CARBON DISULFIDE	75-15-0
CARBON MONOXIDE	630-08-0
CARBON TETRACHLORIDE	56-23-5

chemical_name	cas_rn
CARBON-14	14762-75-5
CARBONATE (AS CO3)	3812-32-6
CARBOPHENOTHION (TRITHION)	786-19-6
CARBOXIN	5234-68-4
CATION-EXCHANGE CAPACITY	CATION-EX
CELLULOSE FIBER	CELLFIBER
CENTRIFUGE MOISTURE EQUIVALENT	CENTMOIST
CERIUM	7440-45-1
CERIUM/PRASEODYMIUM-144	CE/PR-144
CERIUM-139	CE-139
CERIUM-141	13967-74-3
CERIUM-144	14762-78-8
CESIUM 139	CS-139
CESIUM-134	13967-70-9
CESIUM-137	10045-97-3
CHLORAL	75-87-6
CHLORAMBEN	133-90-4
CHLORDANE	57-74-9
CHLORDIMEFORM	6164-98-3
CHLORIDE (AS CL)	16887-00-6
CHLORINATED BENZENES with 10th highest conc.	CHLORBENZENE10
CHLORINATED BENZENES with 2nd highest conc.	CHLORBENZENE2
CHLORINATED BENZENES with 3rd highest conc.	CHLORBENZENE3
CHLORINATED BENZENES with 4th highest conc.	CHLORBENZENE4
CHLORINATED BENZENES with 5th highest conc.	CHLORBENZENE5
CHLORINATED BENZENES with 6th highest conc.	CHLORBENZENE6
CHLORINATED BENZENES with 7th highest conc.	CHLORBENZENE7
CHLORINATED BENZENES with 8th highest conc.	CHLORBENZENE8
CHLORINATED BENZENES with 9th highest conc.	CHLORBENZENE9
CHLORINATED BENZENES with highest conc.	CHLORBENZENE1
CHLORINE	7782-50-5
CHLORINE 37 TETRACHLORODIBENZODIOXIN	TCDDCL37
CHLORINE DIOXIDE	10049-04-4
CHLORMEPHOS	24934-91-6
CHLORNEB	2675-77-6
CHLOROACETALDEHYDE	107-20-0
CHLOROACETIC ACID	79-11-8
CHLOROACETONITRILE	107-14-2
CHLOROALKYL ETHERS	CLAE
CHLOROBENZENE	108-90-7
CHLOROBENZENE-D5	3114-55-4
CHLOROBENZILATE	510-15-6
CHLOROBIPHENYL	37324-23-5
CHLOROCYCLOHEXANE	542-18-7
CHLOROCYCLOHEXANONE	822-87-7
CHLORODIFLUOROMETHANE	75-45-6

chemical_name	cas_rn
CHLOROETHANE	75-00-3
CHLOROFENVINPHOS	470-90-6
CHLOROFORM	67-66-3
CHLOROHEXANONE	CLHXN
CHLOROIODOMETHANE	593-71-5
CHLOROMETHANE	74-87-3
CHLOROMETHYL METHYL ETHER	107-30-2
CHLOROTHALONIL	1897-45-6
CHLOROTOLUENES	25168-05-2
CHLORPYRIFOS	2921-88-2
CHOLESTANE	14982-53-7
CHOLESTEROL	57-88-5
CHROMIUM III	16065-83-1
CHROMIUM, HEXAVALENT	18540-29-9
CHROMIUM, TOTAL	7440-47-3
CHROMIUM-51	14392-02-0
CHRYSENE	218-01-9
CHRYSENE-D12	1719-03-5
CHRYSOTILE	12001-29-5
CIS-1,1,3,5-TETRAMETHYL CYCLOHEXANE	50876-32-9
CIS-1,2-CYCLOHEXANEDIOL	1792-81-0
CIS-1,2-DICHLOROETHYLENE	156-59-2
CIS-1,2-DICHLOROPROPENE	6923-20-2
CIS-1,3-DICHLOROPROPENE	10061-01-5
CIS-1,3-DIMETHYL CYCLOHEXANE	638-04-0
CIS-1,3-DIMETHYL CYCLOOCTANE	MDMCYOC
CIS-1,4-DICHLORO-2-BUTENE	1476-11-5
CIS-1,4-DIMETHYL CYCLOOCTANE	PDMCYOC
CIS-1-BROMO-2-CHLOROCYCLOHEXANE	BRCL2CYHXC
CIS-1-ETHYL-2-METHYL-CYCLOHEXANE	ETMCYC6NC
CIS-1-ETHYL-3-METHYL-CYCLOHEXANE	19489-10-2
CIS-1-ETHYL-4-METHYL-CYCLOHEXANE	EM4CYHX
CIS-8,11,14-EICOSATRIENOIC ACID	ECOSTNA
CIS-9-HEXADECENOIC ACID	HXDA9C
CIS-DIALLATE	DIALATEC
CIS-ISOSAFROLE	17627-76-8
CIS-NONACHLOR	5103-73-1
CIS-PERMETHRIN	54774-45-7
COBALT	7440-48-4
COBALT 56	CO-56
COBALT-57	13981-50-5
COBALT-58	13981-38-9
COBALT-60	10198-40-0
COD - CHEMICAL OXYGEN DEMAND	COD
COLIFORM	COLIF
COLOR	COLOR

chemical_name	cas_rn
COMBUSTIBLE GAS INDEX	CGI
COPPER	7440-50-8
CORROSIVITY	CORROS
COUMAPHOS	56-72-4
CRESOLS, M & P	MEPH1314
CRESOLS, TOTAL	1319-77-3
CROCIDOLITE	12001-28-4
CROTONALDEHYDE	4170-30-3
CROTOXYPHOS	7700-17-6
CYANAZINE	21725-46-2
CYANIDE	57-12-5
CYANIDE, AMENABLE TO CHLORINATION	CNA
CYANOGEN CHLORIDE	506-77-4
CYCLOATE	1134-23-2
CYCLODECANE	293-96-9
CYCLODODECANE	294-62-2
CYCLOHEPTANE	291-64-5
CYCLOHEXADECANE	295-65-8
CYCLOHEXANE	110-82-7
CYCLOHEXANE CARBOXYLIC ACID	98-89-5
CYCLOHEXANE, (1-HEXYLTETRADE)	HXTCY
CYCLOHEXANE, (4-METHYLPENTYL)	M4PNLCYHX
CYCLOHEXANE,1,1-ETHYLIDENEBIS	2319-61-1
CYCLOHEXANE,1,3,5-TRIMETHYL-,(1.ALPHA.,3.ALPHA.,5!	TM135CYHXAAB
CYCLOHEXANE,1-ETHYL-2-METHYL	ETMCYC6N
CYCLOHEXANEDIOL	CYHXDL
CYCLOHEXANOL	108-93-0
CYCLOHEXANONE	108-94-1
CYCLOHEXENE	110-83-8
CYCLOHEXENE,1-METHYL-4-(1-METHYLETHENYL)	7705-14-8
CYCLOHEXYLBENZENE	827-52-1
CYCLOPENTA [CD] PYRENE	27208-37-3
CYCLOPENTANE	287-92-3
CYCLOPENTANECARBOXALDEHYDE	CBOXALDCY
CYCLOPENTANONE, 2-METHYL-4-	M2CYP4
CYCLOPENTENE	142-29-0
CYCLOPHOSPHAMIDE	50-18-0
CYCLOPROPYLBENZENE	873-49-4
CYCLOTETRADECANE	295-17-0
CYMENE	99-87-6
D:A-FRIEDOOLEANAN-3-ONE	FRIEDELIN
DALAPON	75-99-0
DCPA (DACTHAL)	1861-32-1
DCPA ACID METABOLITES (A)	METABOLITES
DDD (1,1-BIS(CHLOROPHENYL)-2,2-DICHLOROETHANE)	DDD
DDE (1,1-BIS(CHLOROPHENYL)-2,2-DICHLOROETHENE)	3547-04-4

chemical name	cas_rn
DDT (1,1-BIS(CHLOROPHENYL)-2,2,2-TRICHLOROETHANE)	DDT
DDT TOTAL	DDTS
DECACHLOROBIPHENYL	2051-24-3
DECAFLUOROBIPHENYL	434-90-2
DECAHYDRO NAPHTHALENE	91-17-8
DECAHYDRO-2-METHYL NAPHTHALENE	DHYM2NPH
DECAHYDRO-4,4,8,9,10-PENTAMETHYLNAPHTHALENE	DHPMN448910
DECAHYDROMETHYL NAPHTHALENE	28258-89-1
DECAHYDROMETHYL-2-NAPHTHALENE METHANOL	DHYD2NPHME
DECAHYDROPENTAMETHYLNAPHTHALENE	DHPMNPH
DECAMETHYL-CYCLOPENTASILOXANE	541-02-6
DECANOIC ACID	334-48-5
DECENE	25339-53-1
DECYL ALDEHYDE	112-31-2
DECYL ESTER ACETIC ACID	DEAA
DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8
DEMETON	8065-48-3
DEMETON-O	298-03-3
DEMETON-S	126-75-0
DENSITY	DENSITY
D-FRIEDOOLEAN-14-EN-3-ONE	FRIEDOOL
DIACETATE 1,1-DODECANEDIOL	DADCN
DIACETONE ALCOHOL	123-42-2
DIALATE (TOTAL OF CIS AND TRANS ISOMERS)	2303-16-4
DIAZINON	333-41-5
DIBENZ (A,B) ANTHRACENE	DBABA
DIBENZ(A,H)ACRIDINE	226-36-8
DIBENZ(A,H)ANTHRACENE	53-70-3
DIBENZ(A,J)ACRIDINE	224-42-0
DIBENZO(A,E)PYRENE	192-65-4
DIBENZO(A,H)PYRENE	189-64-0
DIBENZO(A,I)PYRENE	189-55-9
DIBENZO[C,H][2,6]NAPHT	DBZCHNP26
DIBENZOFURAN	132-64-9
DIBENZOTHIOPHENE (SYNFUEL)	132-65-0
DIBENZYL PHTHALATE	523-31-9
DIBROMOCHLOROMETHANE	124-48-1
DIBROMODICHLOROMETHANE	594-18-3
DIBROMODIFLUOROMETHANE	75-61-6
DIBROMOFLUOROMETHANE	1868-53-7
DIBROMOMETHANE	74-95-3
DIBROMOTRIFLUOROETHANE	DBTFE
DIBUTYLCHLORENDATE	1770-80-5
DICAMBA	1918-00-9
DICHLONE	117-80-6
DICHLORAN	102-30-7

chemical_name	cas_rn
DICHLOROACETIC ACID	79-43-6
DICHLOROBENZENES	25321-22-6
DICHLOROCYCLOHEXANE	2108-92-1
DICHLOROCYCLOHEXANONE	DCCYHXN
DICHLORODIFLUOROMETHANE	75-71-8
DICHLOROETHANES	1300-21-6
DICHLOROETHYLENES	540-59-0
DICHLOROFLUOROMETHANE	75-43-4
DICHLOROPROP	120-36-5
DICHLOROPROPANES	26638-19-7
DICHLOROPROPYLENES	26952-23-8
DICHLORVOS	62-73-7
DICHROTOPHOS	BIDRIN
DICOFOL	115-32-2
DIELDRIN	60-57-1
DIESEL COMPONENTS	DIESELCOMP
DIETHYL BENZENE (MIXED ISOMERS)	25340-17-4
DIETHYL ETHER (ETHYL ETHER)	60-29-7
DIETHYL MALEATE	141-05-9
DIETHYL PHTHALATE	84-66-2
DIETHYL SUCCINATE	123-25-1
DIETHYL SULFATE	64-67-5
DIETHYLBIPHENYL	28575-17-9
DIETHYLMETHYLCYCLOHEXANE	DEMICYHX
DIETHYLSTILBESTROL	56-53-1
DIFTALONE (USAN)	21626-89-1
DIHYDRO-DIMETHYL-1H-INDENE	DHDMIN1H
DIHYDRODIMETHYLBINDENE	DHDMIN
DIHYDROMETHYL FURAN	DHMF
DIHYDROMETHYL INDENE	DHMEIN
DIHYDRO-METHYL-1H-INDENE	DHMIN
DIHYDROTRIMETHYLBINDENE	DHTMIN
DIISOBUTYL CARBINOL	108-82-7
DIISOBUTYL KETONE	108-83-8
DIISONYL ESTER 1,2-BENZENEDICARBOXYLIC ACID	DISEBZDA12
DIMETHOATE	60-51-5
DIMETHOXYMETHANE	109-87-5
DIMETHYL 1H-INDENE	DMIN
DIMETHYL BENZENE	1330-20-7
DIMETHYL BENZONITRILE	5724-56-1
DIMETHYL CYCLOHEXANE	27195-67-1
DIMETHYL CYCLOOCTANE	DMCYO
DIMETHYL DODECANE ISOMERS	DMC12N
DIMETHYL HEXANE ISOMERS	DMHX
DIMETHYL HEXYLADIPATE	DMHEA
DIMETHYL NAPHTHALENE	28804-88-8

chemical_name	cas_rn
DIMETHYL OCTADECANE	1560-86-7
DIMETHYL OCTANE	DMC8N
DIMETHYL OCTENE	DMO
DIMETHYL PHENETHYAMINE	DMPHTHM
DIMETHYL PHTHALATE	131-11-3
DIMETHYL PROPANEDIOIC	DMPDA
DIMETHYL SULFONE	67-71-0
DIMETHYL UNDECANE	79004-83-4
DIMETHYL-(E)-1-METHYL-2-METHYLCARBAMOYL VINYL	MONOCROPHOS
DIMETHYL-1-HEPTANOL	628-44-4
DIMETHYLBENZOIC ACID	603-79-2
DIMETHYLCYCLOHEXADIENE	DMCYH
DIMETHYLCYCLOPENTANE(S)	28729-52-4
DIMETHYLCYCLOPROPANE	62862-34-4
DIMETHYLETHYL PHENOL ISOMER	DMEP
DIMETHYLHEPTANE ISOMERS	30498-66-9
DIMETHYLHEXYNEDIOL	DMHXYD
DIMETHYLISOPROPYLNAPHTHALENE	DMISOPNAPH
DIMETHYLPENTANE	38815-29-1
DIMETHYLPHENANTHRENE	29062-98-4
DIMETHYLPHENYLETHYLAMINE	DMPET
DI-N-BUTYL PHTHALATE	84-74-2
DINITROBENZENE, TOTAL	DNBS
DINITROTOLUENES	DNT
DINOCAP	39300-45-3
DI-N-OCTYLPHTHALATE	117-84-0
DINOSEB	88-85-7
DIOCTADECYL ESTER PHOSPHORIC ACID	DODEPHA
DIOCTYL ADIPATE	103-23-1
DIOCTYL ESTER HEXANEDIOIC ACID	DOEHA
DIOCTYL PHTHALATE HEXANEDIOIC ACID	DOPHA
DIOXACARB	6988-21-2
DIOXOLANE	646-06-0
DIPHENAMID	957-51-7
DIPHENYL ETHER (PHENYLETHER)	101-84-8
DIPHENYL PHENYL METHYL PHOSPHI	DPPMPH
DIPHENYLAMINE	122-39-4
DIPROPYL PHTHALATE	131-16-8
DIQUAT	231-36-7
DISSOLVED ORGANIC CARBON	DOC
DISSOLVED OXYGEN	DISS_OXYGEN
DISULFOTON	298-04-4
DISULFOTON SULFONE	2497-06-5
DISULFOTON SULFOXIDE	2497-07-6
DMPA	24650-42-8
DOCOSANOIC ACID	112-85-6

chemical name	cas_rn
DODECAMETHYL CYCLOHEXASILOXANE	540-97-6
DODECANOIC ACID	143-07-7
DOTRIACONTANE	544-85-4
DXYA12	DXYA12
ENDOSULFAN	115-29-7
ENDOSULFAN SULFATE	1031-07-8
ENDOTHAL	145-73-3
ENDRIN	72-20-8
ENDRIN ALDEHYDE	7421-93-4
ENDRIN KETONE	53494-70-5
EPICHLOROHYDRIN	106-89-8
EPN (ENT)	2104-64-5
ERYTHRITYL TETRANITRATE	7297-25-8
ETHANE	74-84-0
ETHANOL	64-17-5
ETHANONE, 1-OXIRANYL	OXIRET
ETHENE	74-85-1
ETHENYL DIMETHYL BENZENE	ENDMBZ
ETHENYL METHYL BENZENE ISOMER	ENMBZ
ETHION	563-12-2
ETHOPROP	13194-48-4
ETHOXY ETHOXY ETHANOL	111-90-0
ETHYL 1-METHYL-1-PENTENE-3-SELENIDE	EMPTNSED3
ETHYL ACETATE	141-78-6
ETHYL ACETOACETATE	141-97-9
ETHYL ACRYLATE	140-88-5
ETHYL ANTHRACENE	ETANTH
ETHYL CARBAMATE	51-79-6
ETHYL CROTONATE	10544-63-5
ETHYL CYCLOHEXANE	1678917S
ETHYL CYCLOHEXANONE	4423-94-3
ETHYL METHACRYLATE	97-63-2
ETHYL METHANESULFONATE	62-50-0
ETHYL METHYL BENZENE	25550-14-5
ETHYL METHYL CYCLOPENTANE	16747-50-5
ETHYL METHYL HEPTANE	5911-04-6
ETHYL METHYL PHENOL (ISOMER)	EMP
ETHYLBENZENE	100-41-4
ETHYLBENZENE-D10	25837-05-2
ETHYL-CYCLOPENTANE	1640-89-7
ETHYLCYCLOPROPANE	1191-96-4
ETHYLENE CHLOROHYDRIN	107-07-3
ETHYLENE GLYCOL	107-21-1
ETHYLENE GLYCOL MONO BUTYL ETHER	111-76-2
ETHYLENE GLYCOL MONO ETHYL ETHER	110-80-5
ETHYLENE OXIDE	75-21-8

chemical_name	cas_rn
ETHYLENEDIAMINE	107-15-3
ETHYLENETHIOUREA	96-45-7
ETHYLIDENE ACETONE	625-33-2
ETHYLMETHYL CYCLOHEXANE	1678-92-8
ETRIDIAZOLE	2593-15-9
EUROPIUM 155	14391-16-3
EUROPIUM-152; ISOTOPE	14683-23-9
EUROPIUM-154; ISOTOPE	15585-10-1
EXO-TETRAHYDRODICYCLOPENTADIENE	2825-82-3
EXTRACTABLE ORGANIC HALIDES	EOX
FAMPHUR	52-85-7
FECAL COLIFORM	FECCOLIFORM
FECAL STREPTOCOCCI, KF AGAR	FECSTREP
FENAMIPHOS (NEMACUR)	22224-92-6
FENARIMOL	60168-88-9
FENSULFOTHION	115-90-2
FENTHION	55-38-9
FERBAM	14484-64-1
FERRIC IRON	FE(FC)
FERROUS IRON	FE(FS)
FLASH POINT	FLASHPT
FLOW RATE	FLOWRATE
FLUCHLORALIN	33245-39-5
FLUORANTHENE	206-44-0
FLUORENE	86-73-7
FLUORIDE	16984-48-8
FLUORO-2-METHOXY BENZENE	321-28-8
FLUOROACETIC ACID	144-49-0
FLUOROBENZENE	462-06-6
FLUORONITROPHENOL	FNTPH
FLUOROTRIMETHYL SILANE	420-56-4
FLURIDONE	59756-60-4
FOLPET	133-07-3
FORMALDEHYDE	50-00-0
FREE LIQUIDS	FLIQUIDS
FREON 123	306-83-2
FUEL OILS	FOIL
FURFURYL ALCOHOL	98-00-0
GADOLINIUM	7440-54-2
GAMMA BHC (LINDANE)	58-89-9
GAMMA SPECTRALANALYSIS, GE(LI)	GAMMA-GELI
GAMMA, GROSS	GAMMA
GAMMA-CHLORDANE	12789-03-6
GAMMA-SITOSTEROL	GAMMASITOS
GAMMA-TOCOPHEROL	54-28-4
GASOLINE C4-C12	GASC4C12

chemical_name	cas_rn
GASOLINE COMPONENTS	GASCOMP
GERMANICOL	GERML
GLYCOL DIACETATE (ETHYLENE GLYCOL DIACETATE)	111-55-7
GLYPHOSATE	1071-83-6
GOLD	7440-57-5
GUANIDINE	113-00-8
HALOMETHANES	XME
HARDNESS (AS CaCO ₃)	HARD
HARDNESS (AS CaCO ₃), NONCARBONATE	HARDNC
HARDNESS (AS CO ₃), CARBONATE	HARDC
HARDNESS CALCIUM (AS CaCO ₃)	HARDCA
HARDNESS MAGNESIUM (AS CaCO ₃)	HARDMG
HELIUM	7440-59-7
HENEICOSANE,11-(1-ETHYL	E11HECS
HEPTACHLOR	76-44-8
HEPTACHLOR EPOXIDE	1024-57-3
HEPTACHLORINATED DIBENZOFURANS, (TOTAL)	HPCDF
HEPTACHLORINATED DIBENZO-P-DIOXINS, (TOTAL)	HPCDD
HEPTADECANE	629-78-7
HEPTANAL	111-71-7
HEPTANE,3,3'-[OXYBIS (METHYL	OX33MC7N
HEPTANOIC ACID	111-14-8
HEXABROMOBENZENE	87-82-1
HEXACHLORINATED DIBENZOFURANS, (TOTAL)	HXCDF
HEXACHLORINATED DIBENZO-P-DIOXINS, (TOTAL)	HXCDD
HEXACHLOROBENZENE	118-74-1
HEXACHLOROBUTADIENE	87-68-3
HEXACHLOROCYCLOPENTADIENE	77-47-4
HEXACHLOROETHANE	67-72-1
HEXACHLOROPHENE	70-30-4
HEXACHLOROPROPENE	1888-71-7
HEXADECANOIC ACID	57-10-3
HEXADECANOL	36653-82-4
HEXAFLUOROISOPROPANOL	920-66-1
HEXAHYDRO-1,3,5-TRINITRO-1,3,5,7-TETRAZOCINE	RDX
HEXAHYDRO-1,3-BENZODIOXOLE	HXHDXL13
HEXAHYDROAZEPINONE	70874-80-5
HEXAMETHYL PHOSPHORAMIDE	680-31-9
HEXAMETHYLBENZENE	87-85-4
HEXAMETHYLCYCLOTRISILOXANE	541-05-9
HEXANAL	66-25-1
HEXANEDIOIC ACID, MONO (2-ETHYLHEXYL)ESTER	HAM2ETE
HEXANOIC ACID (DOT)	142-62-1
HEXATRIACONTANE	630-06-8
HEXAZINONE	51235-04-2
HEXYL CYCLOHEXANE	4292-75-5

chemical_name	cas_rn
HNU READINGS	HNU
HVY PETROLEUM DISTIL. C10-C23(IE:NO. 2 DIESEL ETC)	HPC10C23
HYDRAZINE	302-01-2
HYDROBROMIC ACID	10035-10-6
HYDROCHLORIC ACID	7647-01-0
HYDROFLUORIC ACID	7664-39-3
HYDROGEN	1333-74-0
HYDROGEN SULFIDE	7783-06-4
HYDROGEN SULFIDE DETECTOR	HSD
HYDROXYCYCLOHEXANONE	533-60-8
IGNITABILITY	IGNITB
INDENE	95-13-6
INDENO(1,2,3-C,D)PYRENE	193-39-5
INDIUM	7440-74-6
IODIDE (AS I)	20461-54-5
IODINE 133	14834-67-4
IODINE-129	15046-84-1
IODINE-131	10043-66-0
IDO CYCLOHEXANE	626-62-0
IODOMETHANE (METHYL IODIDE)	74-88-4
IRIDIUM 192	7439-88-5
IRON	7439-89-6
IRON BACTERIA	IRONBAC
IRON-59	14596-12-4
ISOBUTANOL	78-83-1
ISOBUTYL ACETATE	110-19-0
ISOBUTYLENE	115-11-7
ISODECYL DIPHENYL PHOSPHATE	29761-21-5
ISODRIN	465-73-6
ISOOCTANOL (ISOMERS)	26952-21-6
ISOPHORONE	78-59-1
ISOPROPANOL	67-63-0
ISOPROPENYL ACETATE	108-22-5
ISOPROPENYL-PYRAZINE	ISOPRLPYR
ISOPROPYL ACETATE	108-21-4
ISOPROPYL CARBANILATE	122-42-9
ISOPROPYL CHLORIDE	75-29-6
ISOPROPYL ETHER	108-20-3
ISOPROPYL M-CHLOROCARBANILATE	101-21-3
ISOPROPYLBENZENE (CUMENE)	98-82-8
ISOSAFROLE	120-58-1
ISOTHIAZOLONES	ITZLN
ISOVALERALDEHYDE	590-86-3
JET FUEL #4 (JP4);JET FUEL #5 (JP5)	94114-58-6
JET FUEL #8 (JP8)	JP8
JET FUEL JP-7	JP7

chemical_name	cas_rn
JUNIPENE	JUNIP
KEPONE	143-50-0
KEROSENE	64742-81-0
KRYPTON-85	13983-27-2
LABORATORY ARTIFACTS with 2nd highest conc.	LABARTIFACTS2
LABORATORY ARTIFACTS with highest conc.	LABARTIFACTS1
LANGELIER INDEX (AT 25 C)	LAI
LANTHANUM	7439-91-0
LANTHANUM-140	LA-140
LEAD	7439-92-1
LEAD 211	PB-211
LEAD, TETRAETHYL	78-00-2
LEAD-210	14255-04-0
LEAD-212	15092-94-1
LEAD-214	15067-28-4
LEPTOPHOS	21609-90-5
LIGHT PETROLEUM DISTILLATE C4-C8	LPC4C8
LIME (AS CALCIUM CARBONATE)	471-34-1
LIMONENE	138-86-3
LIQUID LIMIT	LIQLIM
LITHIUM	7439-93-2
LOWER EXPLOSIVE LIMIT	LEL
M,P-XYLENE (SUM OF ISOMERS)	XYLMP
MAGNESIUM	7439-95-4
MALATHION	121-75-5
MALEIC ANHYDRIDE	108-31-6
MALONONITRILE	109-77-3
MANEB	12427-38-2
MANGANESE	7439-96-5
MANGANESE-54	13966-31-9
MANGANESE-56	14681-52-8
MCPA	94-74-6
MCPP	93-65-2
M-CYMENE	535-77-3
MED. PETROLEUM DISTILLATE C8-C12 (IE:NAPHTHA ETC)	MPC8C12
MEPROBAMATE	57-53-4
MERCURY	7439-97-6
MERCURY 203	13982-78-0
MERCURY 210	HG-210
MERPHOS	150-50-5
MESITYL OXIDE	141-79-7
MESTRANOL	72-33-3
METHADATHION	METHAD
METHAMIDOPHOS	10265-92-6
METHANE	74-82-8
METHANE, ISOCYANO	593-75-9

chemical_name	cas_rn
METHANOL	67-56-1
METHAPYRILENE	91-80-5
METHOXYCHLOR	72-43-5
METHOXYCYCLOHEXANE	931-56-6
METHOXYPHENOL	26638-03-9
METHYL ISOBUTYL CHLORIDE	753-89-9
METHYL ACETATE	79-20-9
METHYL ACETOACETATE	105-45-3
METHYL ACRYLATE	96-33-3
METHYL AMYL ALCOHOL	108-11-2
METHYL ANTHRACENE	26914-18-1
METHYL ARACHIDATE	1120-28-1
METHYL BIPHENYL	28652-72-4
METHYL BUTANE	102056-77-9
METHYL CARBONATE	616-38-6
METHYL CHRYSENE	3351-28-8
METHYL DECALINE	MDECL
METHYL DISULFIDE	624-92-0
METHYL DODECANE	90454-15-2
METHYL ESTER BUTANOIC ACID	MEBTA
METHYL ETHYL KETONE (2-BUTANONE)	78-93-3
METHYL HEPTANE ISOMERS	MC7N
METHYL HEXANE ISOMERS	MC6N
METHYL HYDRAZINE	60-34-4
METHYL ISOAMYL KETONE	110-12-3
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1
METHYL METHACRYLATE	80-62-6
METHYL METHANESULFONATE	66-27-3
METHYL N',N'-DIMETHYL-N-((METHYLCARBAMOYL)OXY)-1-	OXAMYL
METHYL NONANE	63335-87-5
METHYL N-PROPYL KETONE	107-87-9
METHYL OCTANE	61193-19-9
METHYL PARAOXON	950-35-6
METHYL PROPANE BENZENE	MPRBZ
METHYL PROPENYL BENZENE ISOMER	MPBZ
METHYL PYRENE	2381-21-7
METHYL SULFIDE	75-18-3
METHYL THIOURACIL	56-04-2
METHYL TRIPHENYLENE	MTPH
METHYL VINYL ACETATE	MEVACET
METHYL(METHYLETHYL)BENZENE	MMEBZ
METHYLACRYLONITRILE	126-98-7
METHYLBENZANTHRACENE	2319-96-2
METHYLBENZYL ALCOHOL	MEBZOH
METHYLCYCLOHEPTANE	4126-78-7
METHYLCYCLOHEXANE	108-87-2

chemical_name	cas_rn
METHYLCYCLOPENTANE	96-37-7
METHYLCYCLOPENTANOL	1462-03-9
METHYLCYCLOPENTENE	693-89-0
METHYLCYCLOPROPANE	594-11-6
METHYLDIBENZOTHIOPHENE	30995-64-3
METHYLDIETHYLBENZAMIDE	2728-04-3
METHYLENE BISTHIOCYNATE	MEBTHCY
METHYLENE BLUE ACTIVE SUBSTANCES	MBAS
METHYLENE CHLORIDE	75-09-2
METHYLETHYL CYCLOHEXANE	696-29-7
METHYLETHYLHEXANE	MEC6N
METHYLETHYLNAPHTHALENE	29253-36-9
METHYLFLUORENE	26914-17-0
METHYL-N-(3,4-DI-CHLOROPHENYL) CARBAMATE	1918-18-9
METHYLNAPHTHALENES (SUM OF ISOMERS)	MTNPH
METHYLPENTANE	43133-95-5
METHYLPENTANOIC ACID	27936-41-0
METHYLPENTENE	37275-41-5
METHYLPHENANTHRENE	31711-53-2
METHYLPROPYLCYCLOHEXANE	26967-64-6
METOLACHLOR	51218-45-2
METRIBUZIN	21087-64-9
MEVINPHOS	7786-34-7
MGK 264	113-48-4
MIREX	2385-85-5
M-MENTHANE	MNM
MOISTURE, PERCENT	MOIST
MOLINATE	2212-67-1
MOLYBDENUM	7439-98-7
MOLYBDENUM-99	14119-15-4
MORPHOLINE	110-91-8
MOTOR OILS	MOIL
M-PHENYLENEDIAMINE	108-45-2
M-TERPHENYL	92-06-8
M-TOLUALDEHYDE	620-23-5
M-XYLENE (1,3-DIMETHYLBENZENE)	108-38-3
N-(1,1-DIMETHYLETHYL)-3-METHYLBENZAMIDE	D11M3N
N-(1-METHYLBUTYLIDENE)METHANAMINE	MBUTMN
N,N'-DI-2-PROPENYL UREA	1801-72-5
N,N-DIETHYL-3-METHYL BENZAMIDE	134-62-3
N,N-DIMETHYL FORMAMIDE	68-12-2
N,N-DIMETHYL-1-PHENETHYLAMINE	DMNNPEA
N,N-DIMETHYLANILINE	121-69-7
N,N-DIMETHYLETHANOLAMINE	108-01-0
NALED	300-76-5
NAPHTHALENE	91-20-3

chemical_name	cas_rn
NAPHTHALENE ACETIC ACID	NAA
NAPHTHALENE-D8	1146-65-2
NAPHTHALINE,6,7-DIETHYL-1,2,3,4-TETRAHYDRO-1,1,4!	NDE67THTM
NAPROPAMIDE	15299-99-7
N-BUTANOL	71-36-3
N-BUTYL ACETATE	123-86-4
N-BUTYL ACRYLATE	141-32-2
N-BUTYL CHLORIDE	109-69-3
N-BUTYL ETHER	142-96-1
N-BUTYLBENZENE	104-51-8
N-BUTYRALDEHYDE	123-72-8
N-DECANE	124-18-5
N-DECYL ALCOHOL	112-30-1
N-DOCOSANE	629-97-0
N-DODECANE	112-40-3
N-EICOSANE	112-95-8
N-ETHYL-4-METHYL-BENZENESULFONAMIDE	80-39-7
N-ETHYLMORPHOLINE	100-74-3
N-HEPTANE	142-82-5
N-HEXACOSANE	630-01-3
N-HEXADECANE	544-76-3
N-HEXANE	110-54-3
N-HEXYL ETHER	112-58-3
NICKEL	7440-02-0
NICKEL 65	NI-65
NICKEL 69	NI-69
NICKEL-63	13981-37-8
NICOTINE	54-11-5
NIOBIUM	7440-03-1
NIOBIUM-94	NB-94
NIOBIUM-95	13967-76-5
NITRATE AS NITROUS OXIDE	NO3NO2
NITRIC ACID	7697-37-2
NITRILOTRIACETATE	139-13-9
NITROBENZENE	98-95-3
NITROBENZENE-D5	4165-60-0
NITROBENZENE-D6	NO2BZD6
NITROCELLULOSE	9004-70-0
NITROFEN	1836-75-5
NITROGEN	7727-37-9
NITROGEN, AMMONIA (AS N)	7664-41-7
NITROGEN, KJELDAHL, TOTAL	KN
NITROGEN, NITRATE (AS N)	14797-55-8
NITROGEN, NITRATE-NITRITE	NO3NO2N
NITROGEN, NITRITE	14797-65-0
NITROGLYCERIN	55-63-0

chemical_name	cas_rn
NITROGUANIDINE	556-88-7
NITROPHENOLS	25154-55-6
NITROSOMETHYLETHYLAMINE	10595-95-6
NITROUS OXIDE	10024-97-2
N-METHYLMORPHOLINE	109-02-4
N-METHYL-N-(1-OXODODECYL)-GLYCINE	97-78-9
N-NITROSODIETHANOLAMINE	1116-54-7
N-NITROSODIETHYLAMINE	55-18-5
N-NITROSODIISOPROPYLAMINE	601-77-4
N-NITROSODIMETHYLAMINE	62-75-9
N-NITROSODIMETHYLAMINE-D6	NNSMD6
N-NITROSO-DI-N-BUTYLAMINE	924-16-3
N-NITROSODI-N-PROPYLAMINE	621-64-7
N-NITROSODIPHENYLAMINE	86-30-6
N-NITROSOMORPHOLINE	59-89-2
N-NITROSO-N-ETHYLUREA	759-73-9
N-NITROSO-N-METHYLUREA	684-93-5
N-NITROSOPIPERIDINE	100-75-4
N-NITROSOPYRROLIDINE	930-55-2
N-NONANE	111-84-2
NO. 1 FUEL OILS C9-C16 (IE:NO. 1 DIESEL FUEL ETC.)	HPC9C16
N-OCTACOSANE	630-02-4
N-OCTADECANE	593-45-3
N-OCTANE	111-65-9
N-OCTANOL	111-87-5
NONACOSANE	630-03-5
NONADECANE	629-92-5
NONADECANOL	1454-84-8
NONANE,3-METHYL-5-PROP	ME3PR5C9N
NONANOIC ACID	112-05-0
NON-ASBESTOS FIBER	NASBFIB
NON-ASBESTOS NON-FIBROUS CONSTITUENTS	NASBNFC
NONDISSOLVED ORGANIC CARBON	NDOC
NON-METHANE ORGANIC CARBONS	NMOC
NONPURGEABLE ORGANIC CARBON	NPOC
NONYLPHENOL	25154-52-3
NORBORNANE	279-23-2
NORFLURAZON	27314-13-2
N-PENTANE	109-66-0
N-PHENYLTHIOUREA	103-85-5
N-PROPANOL	71-23-8
N-PROPYLAMINE	107-10-8
N-PROPYLBENZENE	103-65-1
N-TETRACOSANE	646-31-1
N-TETRADECANE	629-59-4
N-TRIACONTANE	638-68-6

chemical_name	cas_rn
N-TRIDECANE	629-50-5
N-UNDECANE	1120-21-4
O-(2-METHYLPROPYL) HYDROXYLAMINE	OMPHY
O-(3-METHYL-BU HYDROXYLAMINE	MB3HY
O,O,O,O-TETRA-N-PROPYL DITHIOPYROPHOSPHATE	3244-90-4
O,O,O-TRIETHYL PHOSPHOROTHIOATE	126-68-1
O,O-DIMETHYL PHOSPHORODITHIOATE	756-80-9
O,P'-DDD	53-19-0
O,P'-DDE	3424-82-6
O,P'-DDT	789-02-6
O-ANISIDINE	90-04-0
OCTABENZONE	1843-05-6
OCTACHLORODIBENZOFURAN	39001-02-0
OCTACHLORODIBENZOFURAN-C13	OCDFC13
OCTACHLORODIBENZOFURANS (TOTAL)	OCDFC13
OCTACHLORODIBENZO-P-DIOXIN	3268-87-9
OCTACHLORODIBENZO-P-DIOXIN-C13	OCDDC13
OCTACHLORODIBENZO-P-DIOXINS (TOTAL)	OCDDT
OCTADECANAL	638-66-4
OCTADECANOIC ACID	57-11-4
OCTADECENE	27070-58-2
OCTAFLUOROTOLUENE	434-64-0
OCTAHYDE-5H-IDEN-5-ONE	OH5HID
OCTAHYDRO-1-(2-OC)PENTALENE	OCHYPT
OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE	2691-41-0
OCTAHYDRO-2,2,4,4-1H-INDENE	OCHY2244IN
OCTAMETHYL PYROPHOSPHORAMIDE	152-16-9
OCTAMETHYLCYCLOTETRASILOXANE	556-67-2
OCTANAL	124-13-0
OCTANOIC ACID	124-07-2
OCTENE-1	111-66-0
OCTYL CYCLOHEXANE	1795-15-9
O-CYMENE (O-ISOPROPYLTOLUENE)	527-84-4
O-DECYL HYDROXYLAMINE	29812-79-1
ODOR	ODOR
O-FLUOROANILINE	348-54-9
OIL & GREASE, TOTAL REC	OILGREASE
O-PHENYLENEDIAMINE	95-54-5
ORGANIC LEAD	PBO
ORGANIC VAPOR	OVA
ORTHOCHLOROBENZALDEHYDE	89-98-5
ORYZALIN	19044-88-3
OSMIUM	7440-04-2
O-TERPHENYL	84-15-1
O-TOLUALDEHYDE	529-20-4
O-TOLUIDINE	95-53-4

chemical_name	cas_rn
O-TOLUIDINE HYDROCHLORIDE	636-21-5
OTTO FUEL II	106602-80-6
OXACYCLOTETRADECAN-2-ONE	1725-04-8
OXIDATION-REDUCTION POTENTIAL	ORP
OXY BIS ETHANOL	111-46-6
OXYCHLORDANE	27304-13-8
OXYGEN	7782-44-7
O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6
OZONE	10028-15-6
P,P'-DDD	72-54-8
P,P'-DDE	72-55-9
P,P'-DDT	50-29-3
P-AMINOAZOBENZENE	60-09-3
PARALDEHYDE	123-63-7
PARAQUAT	4685-14-7
PARATHION, ETHYL	56-38-2
PARATHION, METHYL	298-00-0
P-BENZOQUINONE	106-51-4
PCB 103	PCB103
PCB 198	PCB198
PCB, TOTAL	PCB
PCB-1016 (AROCHLOR 1016)	12674-11-2
PCB-1020 (AROCHLOR 1020)	PCB1020
PCB-1221 (AROCHLOR 1221)	11104-28-2
PCB-1224 (AROCHLOR 1224)	PCB1224
PCB-1232 (AROCHLOR 1232)	11141-16-5
PCB-1242 (AROCHLOR 1242)	53469-21-9
PCB-1248 (AROCHLOR 1248)	12672-29-6
PCB-1254 (AROCHLOR 1254)	11097-69-1
PCB-1260 (AROCHLOR 1260)	11096-82-5
PCB-1268 (AROCHLOR 1268)	11100-14-4
P-CHLOROPHENYLMETHYLSULFIDE	123-09-1
P-CHLOROPHENYLMETHYLSULFONE	98-57-7
P-CHLOROPHENYLMETHYLSULFOXIDE	934-73-6
P-CRESIDINE	120-71-8
PCT 5060 (AROCLOR 5060)	PCT5060
PCT 5432 (AROCLOR 5432)	PCT5432
PCT 5442 (AROCLOR 5442)	PCT5442
PCT 5460 (AROCLOR 5460)	PCT5460
P-CYMENE (P-ISOPROPYLTOLUENE)	CYMP
P-DIMETHYLAMINOAZOBENZENE	60-11-7
PEBULATE	1114-71-2
PENDIMETHALIN	40487-42-1
PENTACHLORINATED DIBENZOFURANS, (TOTAL)	PECDF
PENTACHLORINATED DIBENZO-P-DIOXINS, (TOTAL)	PECDD
PENTACHLORO 1,1'-BIPHENYL	18259-05-7

chemical_name	cas_rn
PENTACHLOROBENZENE	608-93-5
PENTACHLOROETHANE	76-01-7
PENTACHLORONITROBENZENE	82-68-8
PENTACHLOROPHENOL	87-86-5
PENTACOSANE	629-99-2
PENTADECANE	629-62-9
PENTADECANOIC ACID	1002-84-2
PENTAERYTHRITOL TETRANITRATE	78-11-5
PENTAFLUOROBENZENE	363-72-4
PENTAFLUOROPHENOL	771-61-9
PENTAMETHYLDISILANE	812-15-7
PENTAMETHYLHEPTANE	30586-18-6
PENTANAL (VALERALDEHYDE)	110-62-3
PENTANE-2-METHOXY	C5NMTX
PENTATRIACONTANE	630-07-9
PENTYLCYCLOHEXANE	38792-89-1
PERCENT DRY	DRY
PERCHLORATE	14797-73-0
PERMETHRIN	52645-53-1
PERTHANE	72-56-0
PERYLENE	198-55-0
PERYLENE-D12	1520-96-3
PETROLEUM HYDROCARBONS	8012-95-1
PETROLEUM HYDROCARBONS ABOVE C-10	PHCC10(+)
PETROLEUM HYDROCARBONS AS JP-5	PHCJP5
PH	pH
PHC AS #1 FUEL OILS C9-C16 #1 DIESEL, #1 FUEL OIL	PHCHPD1
PHC AS #2 FUEL OILS C10-C23 #2 DIESEL, #2 FUEL OIL	PHCHPD2
PHC AS AVIATION GAS	PHCAVG
PHC AS DIESEL FUEL	PHCD
PHC AS FUEL OILS	PHCFO
PHC AS GASOLINE	PHCG
PHC AS HEAVY/RESIDUAL FUEL OILS FUEL OILS #4,#5,#6	PHCHFO
PHC AS HEAVY/RESIDUAL RANGE ORGANIC COMPOUNDS	PHCHRO
PHC AS JET FUELS	PHCJ
PHC AS JP-4	PHCJP4
PHC AS KEROSENE	PHCK
PHC AS LUBE OIL	PHCLUB
PHC AS MED. PETROLEUM DIST. C8-C12	PHCMPD
PHC AS UNKNOWN/WASTE PRODUCT, HEAVY RANGE C9-	PHCMH
PHC AS UNKNOWN/WASTE PRODUCT, LIGHT RANGE C4-	PHCML
PHC AS UNKNOWN/WASTE PRODUCT, MEDIUM RANGE C8-	PHCMM
PHC AS WASTE OILS C25+	PHCWASTE
PHENACETIN	62-44-2
PHENANTHRENE	85-01-8
PHENANTHRENE-D10	1517-22-2

chemical_name	cas_rn
PHENOBARBITAL	50-06-6
PHENOL	108-95-2
PHENOL 4-(2,2,3,3-TETRAMETHYLBUTYL)	P4TMB
PHENOL, 2-METHYL-5-(1-	M2PH5
PHENOL-D3	PHD3
PHENOL-D5	4165-62-2
PHENOL-D6	13127-88-3
PHENOLICS, TOTAL RECOVERABLE	TOTPHEN
PHENYLNAPHTHALENE	35465-71-5
PHORATE	298-02-2
PHOSALONE	2310-17-0
PHOSMET	732-11-6
PHOSPHAMIDON	13171-21-6
PHOSPHONIC ACID, DIOCTADECYL ESTER	DDEPA
PHOSPHORIC ACID	7664-38-2
PHOSPHORUS, DISSOLVED (AS P)	7723-14-0
PHOSPHORUS, DISSOLVED HYDROLYZABLE (AS P)	PDHYDRO
PHOSPHORUS, DISSOLVED ORGANIC (AS P)	PDORG
PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	PDORTHO
PHOSPHORUS, TOTAL (AS P)	14596-37-3
PHOSPHORUS, TOTAL HYDROLYZABLE (AS P)	PHYDRO
PHOSPHORUS, TOTAL ORGANIC (AS P)	PORG
PHOSPHORUS, TOTAL ORTHOPHOSPHATE (AS P)	PORTHO
PHOSPHORUS, TOTAL ORTHOPHOSPHATE (AS PO4)	PO4
PHOTOMIREX	39801-14-4
PHTHALAZINONE	119-39-1
PHTHALIC ACID ESTERS (TOTAL)	PHAE
PHTHALIC ANHYDRIDE	85-44-9
PICLORAM	1918-02-1
PICRIC ACID	88-89-1
PINENE	7785-26-4
PIPERONYL SULFOXIDE	120-62-7
PIRIMIPHOS-ETHYL	23505-41-1
PLASTIC LIMIT	PLASLIM
PLASTICITY INDEX	PLASIND
PLUTONIUM 238	13981-16-3
PLUTONIUM 239	15117-48-3
PLUTONIUM 239 AND 240	PU-239/40
P-MONOCHLOROBENZOTRIFLUORIDE	98-56-6
POLYCHLORINATED DIBENZOFURANS (TOTAL)	136677-10-6
POTASSIUM	7440-09-7
POTASSIUM, TRIMETHYLSILANOLATE	10519-96-7
POTASSIUM-40	13966-00-2
P-PHENYLENEDIAMINE	106-50-3
PREGNANE	481-26-5
PROMECARB	2631-37-0

chemical_name	cas_rn
PROMETHIUM-147	14380-75-7
PROMETON	1610-18-0
PROMETRYN	7287-19-6
PRONAMIDE	23950-58-5
PROPACHLOR	1918-16-7
PROPANE	74-98-6
PROPANE NITRILE (PROPIONITRILE)	107-12-0
PROPANEDIOIC ACID	141-82-2
PROPANIL	709-98-8
PROPANOIC ACID ESTER	PAE
PROPANOIC ACID, 2-METHYL-3	2MEPA3
PROPANOIC ACID,2-METHYL-,1-(1-DI)	M2PA
PROPARGITE	2312-35-8
PROPAZINE	139-40-2
PROPENYL BENZENE	637-50-3
PROPENYL BENZODIOXOLE	PRNBZDXL
PROPIONALDEHYDE	123-38-6
PROPIONIC ACID	79-09-4
PROPYL ACETATE	109-60-4
PROPYLBENZAMIDE	PBZD
PROPYLCYCLOHEXANE ISOMER	PRCYHX
PROPYLCYCLOPROPANE	2415-72-7
PROPYLENE	115-07-1
PROPYLENE GLYCOL	57-55-6
PROPYLENE GLYCOL DINITRATE	6423-43-4
PROPYLENE OXIDE	75-56-9
PROPYLTHIOURACIL	51-52-5
PROTACTINIUM 231	14331-85-2
PROTACTINIUM 234	15100-28-4
P-TERPHENYL	92-94-4
P-TOLUALDEHYDE	104-87-0
P-TOLUIDINE	106-49-0
PULEGONE	89-82-7
PURGEABLE ORGANIC CARBONS	POC
P-XYLENE (1,4-DIMETHYLBENZENE)	106-42-3
PYRENE	129-00-0
PYRENE-D10	1718-52-1
PYRIDINE	110-86-1
PYRROLIDINE	123-75-1
PYRROLO [1,2-A] QUINOLINE-1-ETHANOL, DODECAHYDRO-!	PQEDPD
QUINOLINE	91-22-5
RADIATION	RAD
RADIUM	7440-14-4
RADIUM-223	15623-45-7
RADIUM-224	13233-32-4
RADIUM-226	13982-63-3

chemical_name	cas_rn
RADIUM-228	15262-20-1
RADON	10043-92-2
REACTIVITY	REACTIVITY
RESIDUE, TOTAL	RESTOT
RESORCINOL	108-46-3
RHENIUM	7440-15-5
ROCKET PROPELLANT #1, RP-1	RP1
RONNEL	299-84-3
ROTENONE	83-79-4
RUBIDIUM	7440-17-7
RUTHENIUM/RHODIUM-106	RU/RH-106
RUTHENIUM-103	13968-53-1
RUTHENIUM-106	13967-48-1
S,S,S-TRIBUTYL PHOSPHOROTRITHIOATE	78-48-8
SAE TYPE 1020 STEEL CORROSIVITY	SAE1020
SAFROLE	94-59-7
SALINITY	SAL
SCANDIUM 46	13967-63-0
SEC-BUTYL ALCOHOL	78-92-2
SEC-BUTYLBENZENE	135-98-8
SELENIUM	7782-49-2
SELENIUM 75	14265-71-5
SELF (SPONTANEOUS) POTENTIAL	SELF POT
S-ETHYL DI-N,N-PROPYLTHIOCARBAMATE	759-94-4
SETTLEABLE MATTER	SETMAT
SEVIN (CARBARYL)	63-25-2
SIEVE NO. 10, PERCENT PASSING	SIEVE10
SIEVE NO. 200, PERCENT PASSING	SIEVE200
SIEVE NO. 4, PERCENT PASSING	SIEVE4
SIEVE NO. 40, PERCENT PASSING	SIEVE40
SIEVE NO. 80, PERCENT PASSING	SIEVE80
SIEVE, 10 PHI, PERCENT PASSING	SIEVE10PHI
SIEVE, 19000 MICRONS, PERCENT PASSING	SIEVE19KU
SIEVE, 38000 MICRONS, PERCENT PASSING	SIEVE38KU
SIEVE, 4.5 PHI, PERCENT PASSING	SIEVE4.5PHI
SIEVE, 4.75 PHI, PERCENT PASSING	SIEVE4.75PHI
SIEVE, 5 PHI, PERCENT PASSING	SIEVE5PHI
SIEVE, 6 PHI, PERCENT PASSING	SIEVE6PHI
SIEVE, 7 PHI, PERCENT PASSING	SIEVE7PHI
SIEVE, 8 PHI, PERCENT PASSING	SIEVE8PHI
SIEVE, 9 PHI, PERCENT PASSING	SIEVE9PHI
SIEVE, 9500 MICRONS, PERCENT PASSING	SIEVE9.5KU
SIEVE, NO. 100, PERCENT PASSING	SIEVE100
SIEVE, NO. 20, PERCENT PASSING	SIEVE20
SIEVE, NO. 60, PERCENT PASSING	SIEVE60
SILICA	7631-86-9

chemical name	cas_rn
SILICIC ACID, TETRAKIS (2-ETHYLBUTYL)ESTER	SILCICHA
SILICON	7440-21-3
SILOXANE	13597-73-4
SILVER	7440-22-4
SILVER 108 (METASTABLE)	AG-108
SILVER-110M (METASTABLE)	AG-110M
SILVEX (2,4,5-TP)	93-72-1
SIMAZINE	122-34-9
SIMETRYN	1014-70-6
S-METHYL-N-((METHYLCARBAMOYL)-OXY)-	METHOMYL
SODIUM	7440-23-5
SODIUM ABSORPTION RATIO	SAR
SODIUM SULFATE	7757-82-6
SODIUM TRIMETHYLSILANOLATE	18027-10-6
SODIUM-22	13966-32-0
SODIUM-24	16759-28-7
SOLIDS, PERCENT	SOLID
SPECIFIC CONDUCTANCE	SC
SPECIFIC GRAVITY	SG
SPECIFIC IDENTIFICATION OF GASOLINE	8006-61-9
STIGMASTANE	STIGM
STIROFOS (TETRACHLORVINPHOS)	961-11-5
STROBANE	8001-50-1
STRONTIUM	7440-24-6
STRONTIUM 85	13967-73-2
STRONTIUM-89	14158-27-1
STRONTIUM-90	10098-97-2
STRYCHNINE	57-24-9
STYRENE	100-42-5
STYRENE OXIDE	96-09-3
SUBSTITUTED NAPTHALENES with 10th highest conc.	SUBNAPTH10
SUBSTITUTED NAPTHALENES with 2nd highest conc.	SUBNAPTH2
SUBSTITUTED NAPTHALENES with 3rd highest conc.	SUBNAPTH3
SUBSTITUTED NAPTHALENES with 4th highest conc.	SUBNAPTH4
SUBSTITUTED NAPTHALENES with 5th highest conc.	SUBNAPTH5
SUBSTITUTED NAPTHALENES with 6th highest conc.	SUBNAPTH6
SUBSTITUTED NAPTHALENES with 7th highest conc.	SUBNAPTH7
SUBSTITUTED NAPTHALENES with 8th highest conc.	SUBNAPTH8
SUBSTITUTED NAPTHALENES with 9th highest conc.	SUBNAPTH9
SUBSTITUTED NAPTHALENES with highest conc.	SUBNAPTH1
SULFALLATE	95-06-7
SULFAMIDE	7803-58-9
SULFATE (AS SO4)	14808-79-8
SULFIDE	18496-25-8
SULFITE (AS SO3)	14265-45-3
SULFUR	63705-05-5

chemical_name	cas_rn
SULFUR HEXAFLUORIDE	2551-62-4
SULFUR, MOL (S8)	7704-34-9
SULFURIC ACID	7664-93-9
SUM OF CHLORDANE ISOMERS BY EIA	CHLORDANET
SUM OF DDT AND DDT DEGRADATION PRODUCTS (DDT, SURFACTANTS	TDDTS
	SURFACT
SUSPENDED SOLIDS (RESIDUE, NON-FILTERABLE)	SS
SYNTHETIC FIBER	SYNFIBER
T-BUTYLBENZENE	98-06-6
TEBUTHIURON	34014-18-1
TECHNETIUM 99M	TC-99M
TELLURIUM	13494-80-9
TEMPERATURE	TEMP
TERBACIL	5902-51-2
TERBUFOS	13071-79-9
TERBUTRYN	886-50-0
TERPHENYL-D14	98904-43-9
TERT-BUTYL ALCOHOL	75-65-0
TERT-BUTYL METHYL ETHER	1634-04-4
TETRACHLORINATED DIBENZOFURANS, (TOTAL)	TCDF
TETRACHLORINATED DIBENZO-P-DIOXINS, (TOTAL)	TCDD
TETRACHLORO 1,1'-BIPHENYL	33284-53-6
TETRACHLOROETHANES	25322-20-7
TETRACHLOROETHYLENE(PCE)	127-18-4
TETRACHLOROPHENOLS, TOTAL	TECLPHS
TETRACHLOROTEREPTHALIC ACID	2136-79-0
TETRACHLORO-THIOPHENE	6012-97-1
TETRADECANE, 1-IODO	IOC14N
TETRADECANOIC ACID	544-63-8
TETRADECENE	1120-36-1
TETRADIFON	116-29-0
TETRAETHYL DIPHOSPHATE	107-49-3
TETRAETHYLENE GLYCOL	112-60-7
TETRAETHYLENE GLYCOL DIMETHYL ETHER	143-24-8
TETRAHYDRODIMETHYLNAPHTHALENE	THDMNPH
TETRAHYDROFURAN	109-99-9
TETRAHYDROMETHYL NAPHTHALENE	31291-71-1
TETRALIN	119-64-2
TETRAMETHYL BENZENE	25619-60-7
TETRAMETHYL BUTYL PHENOL	27193-28-8
TETRAMETHYL CYCLOHEXANE	30501-43-0
TETRAMETHYL HEXANE	79004-85-6
TETRAMETHYL PENTADECANE	TPC10N
TETRAMETHYL PENTANE	60265-51-2
TETRAMETHYL PHENOL ISOMER	66586-93-4
TETRATETRACONTANE	7098-22-8

chemical_name	cas_rn
TETRATRIACONTANE	14167-59-0
TETRAZENE	14097-21-3
TETRYL	479-45-8
THALLIUM	7440-28-0
THALLIUM-208	14913-50-9
THERMALLY STABLE JET FUEL JP(TS)	JPTS
THIENO[3.2-C]PYRIDINE	TN32CPYRDN
THIODIGLYCOL	111-48-8
THIODIGLYCOLIC ACID	123-93-3
THIODIPHOSPHORIC ACID TETRAETHYL ESTER	3689-24-5
THIOUREA	62-56-6
THIRAM	137-26-8
THORIUM	7440-29-1
THORIUM-227	15623-47-9
THORIUM-228	14274-82-9
THORIUM-230	14269-63-7
THORIUM-231	14932-40-2
THORIUM-234	15065-10-8
TIN	7440-31-5
TIN 113	SN-113
TITANIUM	7440-32-6
TOKUTHION (PROTHIOFOS)	34643-46-4
TOLUENE	108-88-3
TOLUENE DIISOCYANATE	584-84-9
TOLUENE-D8	2037-26-5
TOTAL 1,4-DICHLORO-2-BUTENE	764-41-0
TOTAL AMINOCRESOLS	AMEPH
TOTAL BACTERIA	TB
TOTAL C-10 ALKANES	C10TOT
TOTAL C2-C5 HYDROCARBONS	PHCC2C5
TOTAL C-5 ALKANES	C5TOT
TOTAL C-6 ALKANES	C6TOT
TOTAL C6 HYDROCARBONS	PHCC6
TOTAL C-7 ALKANES	C7TOT
TOTAL C7 HYDROCARBONS	PHCC7
TOTAL C-8 ALKANES	C8TOT
TOTAL C8 HYDROCARBONS	PHCC8
TOTAL C-9 ALKANES	C9TOT
TOTAL C9 HYDROCARBONS	PHCC9
TOTAL CARBON	7440-44-0
TOTAL CARCINOGENIC PAHS BY IMMUNOASSAY.	TCXPAH
TOTAL CHROMATOGRAPHICABLE ORGANICS	TCO
TOTAL DICHLORBIPHENYLS	DCBPH
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TDS
TOTAL EXTRACTABLE LIPIDS	LIPIDS
TOTAL FIXED SOLIDS	TFS

chemical_name	cas_rn
TOTAL FUEL HYDROCARBONS	TFH
TOTAL GASEOUS NONMETHANE ORGANIC EMISSIONS AS	TGNMO
TOTAL GLYCOLS AS ETHYLENE GLYCOL	GLYETGLY
TOTAL HEPTACHLOROBIPHENYLS	28655-71-2
TOTAL HEPTANE AND HIGHER HYDROCARBONS	C7HT
TOTAL HEXACHLOROBIPHENYLS	26601-64-9
TOTAL HEXANES	73513-42-5
TOTAL HYDROCARBONS AS HEXANE	THCHX
TOTAL INORGANIC CARBON	TIC
TOTAL JP-4 DEGRADERS	TJP4D
TOTAL NONACHLOROBIPHENYLS	NCBPH
TOTAL NON-METHANE HYDROCARBONS	NCH4H
TOTAL NON-METHANE HYDROCARBONS AS HEXANE	NCH4HX
TOTAL NON-METHANE HYDROCARBONS AS METHANE	NCH4HYM
TOTAL OCTACHLOROBIPHENYLS	OCBPH
TOTAL OCTANE AND HIGHER HYDROCARBONS	C8HT
TOTAL ORGANIC CARBON	TOC
TOTAL ORGANIC HALIDES (TOX)	TOX
TOTAL ORGANIC HALIDES (TOX) - BROMINATED	TOX_BR
TOTAL ORGANIC HALIDES (TOX) - CHLORINATED	TOX_CL
TOTAL ORGANIC HALIDES (TOX) - IODINATED	TOX_I
TOTAL PENTACHLOROBIPHENYLS	25429-29-2
TOTAL POLYCHLORINATED DIBENZO-P-DIOXINS	PCDD
TOTAL POLYNUCLEAR AROMATIC HYDROCARBONS BY	TPAH
TOTAL RADIUM	TRA
TOTAL SOLIDS	TSO
TOTAL TETRACHLOROBIPHENYLS	TECBPH
TOTAL TETRAMETHYLBENZENE	TMEBZT
TOTAL TRICHLOROBIPHENYLS	TRICBPH
TOTAL TRIHALOMETHANES	THM
TOTAL VOLATILE ORGANICS	TVO
TOTAL VOLATILE PETROLEUM HYDROCARBONS	PHCV
TOTAL VOLATILE PETROLEUM HYDROCARBONS AS	PHCVCH4
TOTAL VOLATILE SOLIDS	TVS
TOTAL, 1,3-DICHLOROPROPENE (CIS AND TRANS)	542-75-6
TOXAPHENE	8001-35-2
TRACETIN	TRIACT
TRANS-1-(CYCLOHEXYLMETHYL) CYCLOHEXANE	CYHEXMCYHXT
TRANS-1-(CYCLOHEXYLMETHYL)-3-METHYL-	CYHXMME3CYHT
TRANS-1,2-CYCLOHEXANEDIOL	1460-57-7
TRANS-1,2-DICHLOROETHENE	156-60-5
TRANS-1,2-DIMETHYLCYCLOHEXANE	6876-23-9
TRANS-1,2-DIMETHYL-CYCLOPENTANE	822-50-4
TRANS-1,3-DICHLOROPROPENE	10061-02-6
TRANS-1,3-DIMETHYL CYCLOHEXANE	2207-03-6
TRANS-1,4-DICHLORO-2-BUTENE	110-57-6

chemical name	cas_rn
TRANS-1,4-DIMETHYL CYCLOOCTANE	PDMCYOT
TRANS-1-ETHYL-2-METHYL-CYCLOHEXANE	ETMCYC6NT
TRANS-1-ETHYL-4-METHYL-CYCLOHEXANE	6236-88-0
TRANS-2,2-DIMETHYL-3-HEXANE	DM22HX3T
TRANS-2-BROMOCYCLOHEXANOL	16536-57-5
TRANS-2-HEXENAL	6728-26-3
TRANS-2-METHYLCYCLOPENTANOL	25144-04-1
TRANS-DECAHYDRO-NAPHTHALENE	493-02-7
TRANS-DIALLATE	DIALLATET
TRANS-ISOSAFROLE	4043-71-4
TRANSMISSIVITY	TRANS
TRANS-NONACHLOR	39765-80-5
TRANS-OCTAHYDRO-7A-METHYL-1H-INDENE-1-ONE	OH7AMIN
TRANS-PERMETHRIN	51877-74-8
TREMOLITE	14567-73-8
TRIADIMEFON	43121-43-3
TRIAZOPHOS	24017-47-8
TRIBUTYL PHOSPHATE	126-73-8
TRIBUTYLPHOSPHINE OXIDE	814-29-9
TRICHLOROBENZENE	12002-48-1
TRICHLOROEICOSYL-SILANE	TCESS
TRICHLOROETHANE	25323-89-1
TRICHLOROETHANOL PHOSPHATE	TCEHP
TRICHLOROETHYLENE (TCE)	79-01-6
TRICHLOROFLUOROMETHANE	75-69-4
TRICHLORONATE	327-98-0
TRICHLOROPHENOLS, TOTAL	25167-82-2
TRICHLOROPHON	52-68-6
TRICHLOROPROPANE	25735-29-9
TRICOSANE	638-67-5
TRICYCLAZOLE	41814782
TRICYCLO[3.2.1.02,4]OCT-6-ENE,8-METHYLENE(1.ALPHA)	85880-10-0
TRICYCLO[3.3.1.13,7]DECANE,1-NITRO-	7575-82-8
TRICYCLO[4.3.0.07]NONANE	TCYC9N
TRIDECANAL	10486-19-8
TRIDECANOIC ACID	638-53-9
TRIDECANOL	112-70-9
TRIETHYLENE GLYCOL	112-27-6
TRIFLURALIN	1582-09-8
TRIMETHYL BENZENE	25551-13-7
TRIMETHYL BENZOIC ACID	15012-36-9
TRIMETHYL CYCLOHEXANE	30498-63-6
TRIMETHYL CYCLOPENTENONE	TMCPT
TRIMETHYL DECANE	98060-54-9
TRIMETHYL DODECANE	TMC12N
TRIMETHYL HEPTANE	15869-87-1

chemical_name	cas_rn
TRIMETHYL HEXANE	26447-41-6
TRIMETHYL HYDRAZINE	1741-01-1
TRIMETHYL NONANE	TMC9N
TRIMETHYL OCTANE	98060-52-7
TRIMETHYL OCTENE	TMO
TRIMETHYL OXIRANE	TMOXR
TRIMETHYL PENTANE	29222-48-8
TRIMETHYL PENTYLPHENOL	TMPPH
TRIMETHYL PHENOL	26998-80-1
TRIMETHYL PHOSPHATE	512-56-1
TRIMETHYL-2-PENTENE ISOMER	TMPTN2
TRIMETHYLBENZENESULFONAMIDE	599-69-9
TRIMETHYLCYCLOPENTANE ISOMERS	28652-77-9
TRIMETHYLNAPHTHALENES	TMNPH
TRIMETHYLPHENYLETHANONE	TMPE
TRIPHENYL PHOSPHATE	115-86-6
TRIPHENYL PHOSPHORUS ACID	TPA
TRIPHENYLENE	217-59-4
TRI-P-TOLYL PHOSPHATE	78-32-0
TRIS(2,3-DIBROMOPROPYL) PHOSPHATE	126-72-7
TRIS(2-ETHYLHEXYL)PHOSPHATE	78-42-2
TRITETRACONTANE	TTCON
TRITIUM (HYDROGEN-3)	10028-17-8
TUNGSTEN	W
TURBIDITY	TURB
UNDECANE 2-CYCLOHEXYL, ?	CYHEX2C11N
UNDECYL-CYCLOHEXANE	54105-66-7
UN-IONIZED H2S AS S2-	HSU
UNKNOWN ALCOHOLS with 10th highest conc.	UNKALCOHOL10
UNKNOWN ALCOHOLS with 2nd highest conc.	UNKALCOHOL2
UNKNOWN ALCOHOLS with 3rd highest conc.	UNKALCOHOL3
UNKNOWN ALCOHOLS with 4th highest conc.	UNKALCOHOL4
UNKNOWN ALCOHOLS with 5th highest conc.	UNKALCOHOL5
UNKNOWN ALCOHOLS with 6th highest conc.	UNKALCOHOL6
UNKNOWN ALCOHOLS with 7th highest conc.	UNKALCOHOL7
UNKNOWN ALCOHOLS with 8th highest conc.	UNKALCOHOL8
UNKNOWN ALCOHOLS with 9th highest conc.	UNKALCOHOL9
UNKNOWN ALCOHOLS with highest conc.	UNKALCOHOL1
UNKNOWN ALKYL ALDEHYDES with 10th highest conc.	UNKALKALDHYDE10
UNKNOWN ALKYL ALDEHYDES with 2nd highest conc.	UNKALKALDHYDE2
UNKNOWN ALKYL ALDEHYDES with 3rd highest conc.	UNKALKALDHYDE3
UNKNOWN ALKYL ALDEHYDES with 4th highest conc.	UNKALKALDHYDE4
UNKNOWN ALKYL ALDEHYDES with 5th highest conc.	UNKALKALDHYDE5
UNKNOWN ALKYL ALDEHYDES with 6th highest conc.	UNKALKALDHYDE6
UNKNOWN ALKYL ALDEHYDES with 7th highest conc.	UNKALKALDHYDE7
UNKNOWN ALKYL ALDEHYDES with 8th highest conc.	UNKALKALDHYDE8

chemical name	cas_rn
UNKNOWN ALKYL ALDEHYDES with 9th highest conc.	UNKALKALDHYDE9
UNKNOWN ALKYL ALDEHYDES with highest conc.	UNKALKALDHYDE1
UNKNOWN ALKYL KEYTONES with 10th highest conc.	UNKALKKEYTONE10
UNKNOWN ALKYL KEYTONES with 2nd highest conc.	UNKALKKEYTONE2
UNKNOWN ALKYL KEYTONES with 3rd highest conc.	UNKALKKEYTONE3
UNKNOWN ALKYL KEYTONES with 4th highest conc.	UNKALKKEYTONE4
UNKNOWN ALKYL KEYTONES with 5th highest conc.	UNKALKKEYTONE5
UNKNOWN ALKYL KEYTONES with 6th highest conc.	UNKALKKEYTONE6
UNKNOWN ALKYL KEYTONES with 7th highest conc.	UNKALKKEYTONE7
UNKNOWN ALKYL KEYTONES with 8th highest conc.	UNKALKKEYTONE8
UNKNOWN ALKYL KEYTONES with 9th highest conc.	UNKALKKEYTONE9
UNKNOWN ALKYL KEYTONES with highest conc.	UNKALKKEYTONE1
UNKNOWN AROMATICS with 10th highest conc.	UNKAROMATIC10
UNKNOWN AROMATICS with 2nd highest conc.	UNKAROMATIC2
UNKNOWN AROMATICS with 3rd highest conc.	UNKAROMATIC3
UNKNOWN AROMATICS with 4th highest conc.	UNKAROMATIC4
UNKNOWN AROMATICS with 5th highest conc.	UNKAROMATIC5
UNKNOWN AROMATICS with 6th highest conc.	UNKAROMATIC6
UNKNOWN AROMATICS with 7th highest conc.	UNKAROMATIC7
UNKNOWN AROMATICS with 8th highest conc.	UNKAROMATIC8
UNKNOWN AROMATICS with 9th highest conc.	UNKAROMATIC9
UNKNOWN AROMATICS with highest conc.	UNKAROMATIC1
UNKNOWN CARBOXYLIC ACID with 10th highest conc.	UNKCARBACID10
UNKNOWN CARBOXYLIC ACID with 2nd highest conc.	UNKCARBACID2
UNKNOWN CARBOXYLIC ACID with 3rd highest conc.	UNKCARBACID3
UNKNOWN CARBOXYLIC ACID with 4th highest conc.	UNKCARBACID4
UNKNOWN CARBOXYLIC ACID with 5th highest conc.	UNKCARBACID5
UNKNOWN CARBOXYLIC ACID with 6th highest conc.	UNKCARBACID6
UNKNOWN CARBOXYLIC ACID with 7th highest conc.	UNKCARBACID7
UNKNOWN CARBOXYLIC ACID with 8th highest conc.	UNKCARBACID8
UNKNOWN CARBOXYLIC ACID with 9th highest conc.	UNKCARBACID9
UNKNOWN CARBOXYLIC ACID with highest conc.	UNKCARBACID1
UNKNOWN HYDROCARBONS with 10th highest conc.	UNKHYDROCARB10
UNKNOWN HYDROCARBONS with 2nd highest conc.	UNKHYDROCARB2
UNKNOWN HYDROCARBONS with 3rd highest conc.	UNKHYDROCARB3
UNKNOWN HYDROCARBONS with 4th highest conc.	UNKHYDROCARB4
UNKNOWN HYDROCARBONS with 5th highest conc.	UNKHYDROCARB5
UNKNOWN HYDROCARBONS with 6th highest conc.	UNKHYDROCARB6
UNKNOWN HYDROCARBONS with 7th highest conc.	UNKHYDROCARB7
UNKNOWN HYDROCARBONS with 8th highest conc.	UNKHYDROCARB8
UNKNOWN HYDROCARBONS with 9th highest conc.	UNKHYDROCARB9
UNKNOWN HYDROCARBONS with highest conc.	UNKHYDROCARB1
UNKNOWN PAHS with 10th highest conc.	UNKPAH10
UNKNOWN PAHS with 2nd highest conc.	UNKPAH2
UNKNOWN PAHS with 3rd highest conc.	UNKPAH3
UNKNOWN PAHS with 4th highest conc.	UNKPAH4

chemical name	cas_rn
UNKNOWN PAHS with 5th highest conc.	UNKPAH5
UNKNOWN PAHS with 6th highest conc.	UNKPAH6
UNKNOWN PAHS with 7th highest conc.	UNKPAH7
UNKNOWN PAHS with 8th highest conc.	UNKPAH8
UNKNOWN PAHS with 9th highest conc.	UNKPAH9
UNKNOWN PAHS with highest conc.	UNKPAH1
UNKNOWN SV with 10th highest conc.	UNKSV10
UNKNOWN SV with 2nd highest conc.	UNKSV2
UNKNOWN SV with 3rd highest conc.	UNKSV3
UNKNOWN SV with 4th highest conc.	UNKSV4
UNKNOWN SV with 5th highest conc.	UNKSV5
UNKNOWN SV with 6th highest conc.	UNKSV6
UNKNOWN SV with 7th highest conc.	UNKSV7
UNKNOWN SV with 8th highest conc.	UNKSV8
UNKNOWN SV with 9th highest conc.	UNKSV9
UNKNOWN SV with highest conc.	UNKSV1
UNKNOWN VOA with 10th highest conc.	UNKVOA10
UNKNOWN VOA with 2nd highest conc.	UNKVOA2
UNKNOWN VOA with 3rd highest conc.	UNKVOA3
UNKNOWN VOA with 4th highest conc.	UNKVOA4
UNKNOWN VOA with 5th highest conc.	UNKVOA5
UNKNOWN VOA with 6th highest conc.	UNKVOA6
UNKNOWN VOA with 7th highest conc.	UNKVOA7
UNKNOWN VOA with 8th highest conc.	UNKVOA8
UNKNOWN VOA with 9th highest conc.	UNKVOA9
UNKNOWN VOA with highest conc.	UNKVOA1
UNKNOWN with 10th highest conc.	UNKNOWN10
UNKNOWN with 2nd highest conc.	UNKNOWN2
UNKNOWN with 3rd highest conc.	UNKNOWN3
UNKNOWN with 4th highest conc.	UNKNOWN4
UNKNOWN with 5th highest conc.	UNKNOWN5
UNKNOWN with 6th highest conc.	UNKNOWN6
UNKNOWN with 7th highest conc.	UNKNOWN7
UNKNOWN with 8th highest conc.	UNKNOWN8
UNKNOWN with 9th highest conc.	UNKNOWN9
UNKNOWN with highest conc.	UNKNOWN1
URANIUM	7440-61-1
URANIUM 233 AND 234	U-233/234
URANIUM 235 AND 236	U-235/236
URANIUM-234	13966-29-5
URANIUM-235	15117-96-1
URANIUM-236	13982-70-2
VANADIUM	7440-62-2
VANADIUM 48	14331-97-6
VERNOLATE	1929-77-7
VINYL ACETATE	108-05-4

chemical_name	cas_rn
VINYL CHLORIDE	75-01-4
VINYL ETHYL ETHER	109-92-2
VINYL ISOBUTYL ETHER	109-53-5
VINYL N-BUTYL ETHER	111-34-2
VOID RATIO OF SOILS	VOIDRATIO
VOLATILE ORGANIC HYDROCARBONS with 2nd highest conc.	VOLHYDROCARB2
VOLATILE ORGANIC HYDROCARBONS with 3rd highest conc.	VOLHYDROCARB3
VOLATILE ORGANIC HYDROCARBONS with 4th highest conc.	VOLHYDROCARB4
VOLATILE ORGANIC HYDROCARBONS with 5th highest conc.	VOLHYDROCARB5
VOLATILE ORGANIC HYDROCARBONS with 6th highest conc.	VOLHYDROCARB6
VOLATILE ORGANIC HYDROCARBONS with 7th highest conc.	VOLHYDROCARB7
VOLATILE ORGANIC HYDROCARBONS with 8th highest conc.	VOLHYDROCARB8
VOLATILE ORGANIC HYDROCARBONS with highest conc.	VOLHYDROCARB1
VOLATILE SUSPENDED SOLIDS	VSS
VOLATILE TOTAL DISSOLVED SOLIDS	VTDS
WARFARIN	81-81-2
WASTE OIL C25+ (I.E. MOTOR OIL, HYDRAULIC FLUID)	WOIL
XENON-133	14932-42-4
XYLENES, O & M	XYLENES1213
XYLENES, O & P	XYLENES1214
XYLENES, TOTAL	XYLENES
YTTRIUM	7440-65-5
YTTRIUM 88	Y-88
ZINC	7440-66-6
ZINC-65	13982-39-3
ZINEB	12122-67-7
ZINOPHOS	297-97-2
ZIRAM	137-30-4
ZIRCONIUM	7440-67-7
ZIRCONIUM-95	13967-71-0

7.11 Lab_and_method_name

lab_and_meth	description
A203	CALCIUM CARBONATE SATURATION
A205	SPECIFIC CONDUCTIVITY
A209A	TOTAL SOLIDS DRIED AT 103-105°C
A209B	TOTAL DISSOLVED SOLIDS DRIED AT 180°C
A209C	TOTAL SUSPENDED SOLIDS, DRIED AT 103-105°C
A209F	TOTAL, FIXED, AND VOLATILE SOLIDS IN SOLID AND SEMISOLID SAMPLES
A2320	ALKALINITY
A2340B	HARDNESS BY CALCULATION
A2710F	SPECIFIC GRAVITY
A2720C	SLUDGE DIGESTER GAS GC/TCD METHOD FOR CH ₄ , CO ₂ , N, H, H ₂ S, O
A303A	METALS (BY DIRECT ASPIRATION INTO AN AIR-ACETYLENE FLAME)
A303C	DETERMINATION OF AL,* BA, BE, *MO, OS, RE, SI, TH, TI & V BY DIRECT AS

lab_anl_meth	description
A303E	DETERM. OF AS & SE BY CONVERSION TO THEIR HYDRIDES BY SODIUM
A312B	CHROMIUM, HEXAVALENT (COLORIMETRIC METHOD)
A314A	HARDNESS BY CALCULATION
A3500D	STANDARD METHODS FOR THE DETERMINATION OF METALS
A403	ALKALINITY
A405	BROMIDE
A406B	TITRIMETRIC METHOD FOR FREE CARBON DIOXIDE
A407A	CHLORIDE (ARGENTOMETRIC)
A407B	CHLORIDE (MERCURIC NITRATE METHOD)
A412D	TOTAL CYANIDE COLORIMETRIC METHOD
A412E	CYANIDE, BY ION SELECTION ELECTRODE
A412F	CYANIDE, AMENABLE TO CHLORINATION
A413B	FLUORIDE, ELECTRODE METHOD
A413C	FLUORIDE (SPADNS)
A417C	NITROGEN (AMMONIA) PHENATE METHOD
A417G	AMONIA
A418B	NITRATE ELECTRODE SCREENING METHOD
A418C	NITROGEN (NITRATE) CADMIUM REDUCTION METHOD
A418F	NITROGEN (NITRATE, AUTOMATED CADMIUM REDUCTION METHOD)
A419	NITROGEN (NITRITE)
A423	PH VALUE
A424G	PHOSPHATE (ASCORBIC ACID REDUCTION)
A425C	SILICA, MOLYBDOSILICATE METHOD
A426C	SULFATE TURBIDIMERIC METHOD
A426D	SULFATE (AUTOMATED METHYLTHYMOL BLUE METHOD)
A429	ANIONS BY ION CHROMATOGRAPHY
A4500B	THE DETERMINATION OF INORGANIC NON-METALLIC CONSTITUENTS
A4500C	THE DETERMINATION OF INORGANIC NON-METALLIC CONSTITUENTS
A4500F	STANDARD METHODS A4500F
A503A	OIL AND GREASE, PARTITION - GRAVIMETRIC METHOD
A503D	OIL AND GREASE IN SOIL AND SLUDGE SAMPLES
A503DE	OIL AND GREASE IN SOIL AND SLUDGE WITH SILICA GEL HYDROCARBON
A506	TOTAL ORGANIC HALIDES (TOX)
A507	OXYGEN DEMAND (BIOCHEMICAL)
A508A	CHEMICAL OXYGEN DEMAND (COD)
A508B	CHEMICAL OXYGEN DEMAND (CLOSED REFLUX, TITRIMETRIC)
A509A	ORGANOCHLORINE PESTICIDES
A509B	CHLORINATED PHENOXY HERBICIDES
A510B	PHENOLS, CHLOROFORM EXTRACTION METHOD
A5310B	STANDARD METHOD FOR THE DETERMINATION OF TOTAL ORGANIC
A5520	OIL AND GREASE
A5520C	SM5520C-PARTITION-IR OIL AND GREASE DETERMINATION
A703	GROSS ALPHA-GROSS BETA
A704	TOTAL RADIOACTIVE STRONTIUM AND STRONTIUM 90 IN WATER
A705	TOTAL RADIUM
A706	RADIUM-226 BY RADON IN WATER (SOLUBLE, SUSPENDED, AND TOTAL)

lab_anl_meth	description
A707	RADIUM-228 (SOLUBLE) (TENTATIVE)
A708	TRITIUM
A709	RADIOACTIVE CESIUM
A710A	RADIOACTIVE IODINE, PRECIPITATION METHOD
A711	URANIUM
A711A	URANIUM RADIOCHEMICAL (TENTATIVE)
A907A	TOTAL BACTERIA (POUR PLATE METHOD)
A907B	TOTAL BACTERIA (SPREAD PLATE METHOD)
A907C	TOTAL BACTERIA (MEMBRANE FILTER METHOD)
A908C	FECAL COLIFORM, MPN PROCEDURE
A909A	STANDARD TOTAL COLIFORM, MEMBRANE FILTER TECHNIQUE
A918A	IRON BACTERIA
A9215B	HETEROTROPHIC PLATE COUNT, POUR PLATE METHOD
A9215C	HETEROTROPHIC PLATE COUNT - SPREAD PLATE METHOD
A9221E	MULTIPLE TUBE FERMENTATION TECHNIQUE FOR TOTAL AND FECAL
AK101	GASOLINE RANGE ORGANICS, ALASKA DEPT. OF ENVIRONMENTAL
AK102	DIESEL RANGE ORGANICS, ALASKA DEPT. OF ENVIRONMENTAL
AK103	RESIDUAL RANGE ORGANICS, ALASKA DEPT. OF ENVIRONMENTAL
APIRPC	API RP-40 RECOMMENDED PRACTICE FOR CORE ANALYSIS, BULK DENSITY
AS9302	BULK DENSITY
ASA245	PHOPHORUS SOLUBLE IN DILUTE-ACID-FLUORIDE ASA 24-5.1,
AVS	MODIFIED METHOD FOR THE COLORIMETRIC DETERMINATION OF ACID
BNASIM	GC/MS-SIM ANALYSIS OF SELECTED BNA'S FROM SW8270.
BS1377	BULK DENSITY (WATER DISPLACEMENT), MANUAL OF SOIL LABORATORY
C200.7	ICP METALS (TCL)
C204.2	ANTIMONY (TCL)
C206.2	ARSENIC (TCL)
C213.2	CADMIUM (AA, FURNACE TECHNIQUE) (TCL)
C239.2	LEAD (FURNACE TECHNIQUE) (TCL)
C245.1	MERCURY (TCL)
C245.2	MERCURY, AUTOMATED COLD VAPOR (TCL)
C245.5	MERCURY ANALYSIS IN SOIL/SEDIMENT BY MANUAL COLD VAPOR
C258.1	POTASSIUM (AA, FURNACE TECHNIQUE) (TCL)
C270.2	SELENIUM (TCL)
C273.1	SODIUM (AA, FURNACE TECHNIQUE) (TCL)
C279.2	THALLIUM (TCL)
C335.2	CYANIDE (TCL)
CAAIR	AIR SAMPLE ANALYSES
CACARB	THE DETERMINATION OF VOLATILE SULFUR COMPOUNDS IN AIR BY
CALC	CALCULATED ANALYTICAL PARAMETER
CAPBO	DETERMINATION OF ORGANIC LEAD DHS METHOD
CARBV	CARB METHOD FOR BTEX IN AMBIENT AIR BY GC/PID
CATFH	TOTAL FUEL HYDROCARBONS: LUFT METHOD (CALIFORNIA)
CNFTL	COLUMBIA NATIONAL FISHERIES RESEARCH LABORATORY METHOD FOR
CPEST	CLP PESTICIDES (TCL)
CSGAS	THE DETERMINATION OF CSGAS IN SOIL AND WATER, GC/ECD METHOD

lab anl meth	description
CSVOL	SEMI-VOLATILE ORGANIC COMPOUNDS (TCL)
CVOL	VOLATILE ORGANIC COMPOUNDS (TCL)
D1140	AMOUNT OF MATERIAL IN SOILS FINER THAN THE # 200 (75-UM) SIEVE
D1385	HYDRAZINE (SPECTROPHOTOMETRIC)
D1498	DETERMINATION OF THE OXIDATION-REDUCTION POTENTIAL OF WATER
D1556	DENSITY OF SOIL IN PLACE BY THE SAND-CONE METHOD
D1890	BETA PARTICLE RADIOACTIVITY OF WATER
D1943	ALPHA PARTICLE RADIOACTIVITY OF WATER
D1945	ANALYSIS OF NATURAL GAS BY GAS CHROMATOGRAPHY
D1946	DETERMINATION OF FIXED OR REFORMED GASES BY GC
D2036C	WEAK ACID DISSOCIABLE CYANIDE, COLORIMETRIC DETERMINATION
D2166	UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL
D2167	DENSITY & UNIT WEIGHT OF SOIL IN PLACE BY THE RUBBER BALLOON
D2216	PERCENT SOLID
D2325	CAPILLARY-MOISTURE RELATIONSHIPS FOR COARSE- & MEDIUM-
D2434	PERMEABILITY
D2460	RADIONUCLIDES OF RADIUM IN WATER
D2487	CLASSIFICATION OF SOILS, FOR ENGINEERING PURPOSES
D2937	DENSITY OF SOIL IN PLACE BY THE DRIVE-CYLINDER METHOD
D2974	TOTAL ORGANIC CONTENT
D3084	ASTM METHOD FOR ALPHA SPECTROMETRY OF WATER
D3152	CAPILLARY-MOISTURE RELATIONSHIPS FOR FINE-TEXTURED SOILS BY
D3155	LIME CONTENT OF UNCURED SOIL-LIME MIXTURES
D3328	ASTM METHOD FOR THE COMPARISON OF WATERBORNE PETROLEUM
D3385	INFILTRATION RATE OF SOILS IN FIELD USING DOUBLE-RING
D3416	TOTAL HYDROCARBONS, METHANE, AND CARBON MONOXIDE IN THE
D3695	VOLATILE ALCOHOLS IN WATER BY DIRECT AQUEOUS INJECTION GC
D3865	STANDARD TEST METHOD FOR PLUTONIUM IN WATER BY ALPHA
D4129	TOTAL AND ORGANIC CARBON IN WATER OXIDATION BY COULOMETRIC
D421	DRY PREPARATION OF SOIL SAMPLES FOR PARTICLE-SIZE ANALYSIS &
D4219	UNCONFINED COMPRESSIVE STRENGTH INDEX OF CHEMICAL-GROUTED
D422	GRAIN SIZE
D4221	DISPERSIVE CHARACTERISTICS OF CLAY SOIL BY DOUBLE HYDROMETER
D425	CENTRIFUGE MOISTURE EQUIVALENT OF SOILS
D427	SHRINKAGE FACTORS OF SOILS
D4318	LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS
D4373	CALCIUM CARBONATE CONTENT OF SOILS
D4380	DENSITY OF BENTONITIC SLURRIES
D4381	SAND CONTENT BY VOLUME OF BENTONITIC SLURRIES
D4452	X-RAY RADIOGRAPHY OF SOIL-SAMPLES
D4525	PERMEABILITY OF ROCKS BY FLOWING AIR
D4531	BULK DENSITY OF PEAT AND PEAT PRODUCTS
D4542	PORE WATER EXTRACTION AND DETERMINATION OF THE SOLUBLE SALT
D4564	DENSITY OF SOIL IN PLACE BY THE SLEEVE METHOD
D4643	DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL BY THE
D4972A	SOIL PH, PH METER METHOD

lab anl meth	description
D4972B	SOIL PH, PH PAPER METHOD
D512A	CHLORIDE ION IN WATER
D5174	ASTM METHOD FOR TRACE URANIUM IN WATER BY PULSED LASER
D854	SPECIFIC GRAVITY OF SOILS
DCNDMA	DATACHEM LABS METHOD FOR N-NITROSODIMETHYLAMINE BY GC/MS
E110.1	COLOR (COLORIMETRIC, ADMI)
E110.2	COLOR (COLORIMETRIC-PLATINUM-COBALT)
E110.3	COLOR (SPECTROPHOTOMETRIC)
E120.1	SPECIFIC CONDUCTANCE
E130.1	HARDNESS, TOTAL (COLORIMETRIC, AUTOMATED EDTA)
E130.2	HARDNESS, TOTAL (TITRIMETRIC)
E140.1	ODOR (THRESHOLD ODOR, CONSISTENT SERIES)
E150.1	PH, ELECTROMETRIC
E160.1	RESIDUE, FILTERABLE (TDS)
E160.2	RESIDUE, NON-FILTERABLE
E160.3	RESIDUE, TOTAL (GRAVIMETRIC, DRIED AT 103-105 DEGREE CELSIUS)
E160.4	RESIDUE, VOLATILE (GRAVIMETRIC, IGNITION AT 550 DEGREE CELSIUS)
E160.5	SETTLEABLE MATTER (VOLUMETRIC, IMHOFF CONE)
E1613	EPA STANDARD METHOD FOR HIGH RESOLUTION ANALYSIS OF
E1624	VOLATILE ORGANIC COMPOUNDS BY ISOTOPE DILUTION GC/MS
E1625	SEMIVOLATILE ORGANIC COMPOUNDS BY ISOTOPE DILUTION GC/MS
E1658	THE DETERMINATION OF PHENOXY-ACID HERBICIDES IN MUNICIPAL AND
E170.1	TEMPERATURE
E18	MEASUREMENT OF GASEOUS ORGANIC COMPOUND EMISSIONS BY GAS
E180.1	TURBIDITY (NEPHELOMETRIC)
E18PF	MODIFIED E18, ON COLUMN PRE-FRACTIONATION OF VINYL CHLORIDE
E200.7	INDUCTIVELY COUPLED PLASMA (ICP) METALS SCREEN
E200.9	DETERMINATION OF TRACE ELEMENTS BY STABILIZED TEMPERATURE
E202.1	ALUMINUM
E202.2	ALUMINUM (AA, FURNACE TECHNIQUE)
E204.1	ANTIMONY (AA, DIRECT ASPIRATION)
E204.2	ANTIMONY (AA, FURNACE TECHNIQUE)
E206.2	ARSENIC (AA, FURNACE)
E206.3	ARSENIC (AA, HYDRIDE)
E208.1	BARIUM (AA, DIRECT ASPIRATION)
E208.2	BARIUM (AA, FURNACE)
E210.1	BERYLLIUM
E210.2	BERYLLIUM (AA, FURNACE TECHNIQUE)
E212.3	BORON (COLORIMETRIC, CURCUMIN)
E213.1	CADMIUM (AA, DIRECT ASPIRATION)
E213.2	CADMIUM (AA, FURNACE)
E215.1	CALCIUM (AA, DIRECT ASPIRATION)
E218.1	CHROMIUM (AA, DIRECT ASPIRATION)
E218.2	CHROMIUM (AA, FURNACE)
E218.4	CHROMIUM HEXAVALENT (AA, CHELATION-EXTRACTION)
E218.5	SOLUBLE CHROMIUM (AA, FURNACE)

lab_anl_meth	description
E218.6	HEXAVALENT CHROMIUM BY EPA METHOD
E219.1	COBALT (AA, DIRECT ASPIRATION)
E219.2	COBALT (ATOMIC ABSORPTION, FURNACE TECHNIQUE)
E220.1	COPPER (AA, DIRECT ASPIRATION)
E220.2	COPPER (AA, FURNACE)
E23	DETERMINATION OF POLYCHLORINATED DIOXINS AND FURANS IN AIR
E236.1	IRON (AA, DIRECT ASPIRATION)
E236.2	IRON (AA, FURNACE TECHNIQUE)
E239.1	LEAD (AA, DIRECT ASPIRATION)
E239.2	LEAD (AA, FURNACE)
E242.1	MAGNESIUM (AA, DIRECT ASPIRATION)
E243.1	MANGANESE (AA, DIRECT ASPIRATION)
E243.2	MANGANESE (AA, FURNACE TECHNIQUE)
E245.1	MERCURY (COLD VAPOR, MANUAL)
E245.2	MERCURY (COLD VAPOR, AUTOMATED)
E245.4	
E245.5	MERCURY (COLD VAPOR, SEDIMENTS)
E246.1	MOLYBDENUM (AA, DIRECT ASPIRATION)
E246.2	MOLYBDENUM (AA, FURNACE TECHNIQUE)
E249.1	NICKEL (AA, DIRECT ASPIRATION)
E249.2	NICKEL (AA, FURNACE)
E258.1	POTASSIUM BY AA, DIRECT ASPIRATION
E25C	DETERMINATION OF TOTAL GASEOUS NONMETHANE ORGANIC
E26	DETERMINATION OF HYDROGEN CHLORIDE EMISSIONS FROM
E270.1	SELENIUM (AA, DIRECT ASPIRATION)
E270.2	SELENIUM (AA, FURNACE)
E270.3	SELENIUM (AA, HYDRIDE)
E272.1	SILVER (AA, DIRECT ASPIRATION)
E272.2	SILVER (AA, FURNACE)
E273.1	SODIUM (AA, DIRECT ASPIRATION)
E273.2	SODIUM (AA, FURNACE TECHNIQUE)
E279.1	THALLIUM (AA, DIRECT ASPIRATION)
E279.2	THALLIUM (AA, FURNACE)
E282.1	TIN (AA, DIRECT ASPIRATION)
E283.1	TITANIUM (AA, DIRECT ASPIRATION)
E283.2	TITANIUM (AA, FURNACE TECHNIQUE)
E286.1	VANADIUM (AA, DIRECT ASPIRATION)
E286.2	VANADIUM (AA, FURNACE TECHNIQUE)
E289.1	ZINC (AA, DIRECT ASPIRATION)
E289.2	ZINC (AA, FURNACE)
E300	DETERMINATION OF INORGANIC ANIONS IN WATER BY ION
E305.1	ACIDITY (TITRIMETRIC)
E306	SULFATE
E310.1	ALKALINITY (TITRIMETRIC)
E310.2	ALKALINITY COLORIMETRIC, METHYL
E320.1	TOTAL BROMIDE, TITRIMETRIC

lab_anl_meth	description
E325.1	CHLORIDE (COLORIMETRIC, AUTOMATED FERRICYANIDE AAI)
E325.2	CHLORIDE (AS CL), COLORIMETRIC AUTOMATED FERRICYANIDE, AA II
E325.3	CHLORIDE (TITRIMETRIC, MERCURIC NITRATE)
E330.2	CHLORINE, TOTAL RESIDUAL (TITRIMETRIC, BACK, IODOMETRIC)
E330.3	CHLORINE, TOTAL RESIDUAL (TITRIMETRIC, IODOMETRIC)
E330.4	CHLORINE, TOTAL RESIDUAL
E335.1	CYNAIDES, AMENABLE TO CHLORINATION (TITRIMETRIC;
E335.2	TOTAL CYANIDE
E335.3	TOTAL CYANIDE (COLORIMETRIC, AUTOMATED UV)
E340.1	FLUORIDE (COLORIMETRIC)
E340.2	FLUORIDE, POTENTIOMETRIC, ION SELECTIVE ELECTRODE
E340.3	FLUORIDE (COLORIMETRIC, AUTOMATED COMPLEXONE)
E345.1	IODIDE (TITRIMETRIC)
E350.1	NITROGEN (AMMONIA - COLORIMETRIC, AUTOMATED PHENATE)
E350.2	NITROGEN AMMONIA
E350.3	NITROGEN, AMMONIA (POTENTIOMETRIC, ION SELECTIVE ELECTRODE)
E351.1	NITROGEN, KJELDAHL, TOTAL (COLORIMETRIC, AUTOMATED PHENATE)
E351.2	NITROGEN, KJELDAHL, TOTAL (COLORIMETRIC, SEMI-AUTOMATED
E351.3	NITROGEN, KJELDAHL, TOTAL (COLORIMETRIC; TITRIMETRIC;
E351.4	NITROGEN, KJELDAHL, TOTAL (POTENTIOMETRIC, ION SEL ELECTRODE)
E352.1	NITROGEN (NITRATE - COLORIMETRIC BRUCINE)
E353.1	NITROGEN, NITRATE-NITRITE (COLORIMETRIC AUTOMATED, HYDRAZINE
E353.2	NITROGEN, NITRATE-NITRITE (COLORIMETRIC AUTOMATED, CADMIUM
E353.3	NITROGEN, NITRATE-NITRITE
E354.1	NITROGEN, NITRITE (SPECTROPHOTOMETRIC)
E360.1	OXYGEN, DISSOLVED (MEMBRANE ELECTRODE)
E365.1	PHOSPHORUS, ALL FORMS (COLORIMETRIC, AUTOMATED, ASCORBIC
E365.2	PHOSPHORUS, ALL FORMS (AS P)
E365.3	PHOSPHORUS, ALL FORMS (COLORIMETRIC, ASCORBIC ACID, TWO
E365.4	PHOSPHORUS, TOTAL (COLORIMETRIC, AUTOMATED BLOCK DIGESTOR
E370.1	SILICA, DISSOLVED (COLORIMETRIC)
E375.1	SULFATE, COLORIMETRIC, AUTOMATED CHLORANILATE
E375.2	SULFATE, COLORIMETRIC, AUTOMATED METHYLTHYMOL BLUE, AA II
E375.3	SULFATE (AS SO4), GRAVIMETRIC
E375.4	SULFATE (AS SO4), TURBIDIMETRIC
E376.1	SULFIDE, TITRIMETRIC, IODINE
E376.2	SULFIDE (COLORIMETRIC, METHYLENE BLUE)
E377.1	SULFITE (TITRIMETRIC)
E405.1	BIOCHEMICAL OXYGEN DEMAND
E410.1	CHEMICAL OXYGEN DEMAND
E410.2	CHEMICAL OXYGEN DEMAND
E410.3	COD (TITRIMETRIC, HIGH LEVEL FOR SALINE WATERS)
E410.4	CHEMICAL OXYGEN DEMAND (COLORIMETRIC, AUTOMATED MANUAL)
E413.1	OIL AND GREASE, TOTAL RECOVERABLE (GRAVIMETRIC)
E413.2	OIL AND GREASE, TOTAL RECOVERABLE (SPECTROPHOTOMETRIC IR)
E415.1	TOTAL ORGANIC CARBON (COMBUSTION OR OXIDATION)

lab_anl_meth	description
E415.2	TOTAL ORGANIC CARBON (UV PROMOTED, PERSULFATE OXIDATION)
E418.1	PETROLEUM HYDROCARBONS, TOTAL RECOVERABLE (SPECTROPHOTO
E420.1	PHENOLICS, TOTAL RECOVERABLE (SPECTROPHOTOMETRIC, MANUAL)
E420.2	PHENOLICS (COLORIMETRIC, AUTOMATED 4-AAP WITH DISTILLATION)
E420.3	PHENOLICS, TOTAL RECOVERABLE (SPECTROPHOTOMETRIC, MAN. 4-AAP)
E425.1	METHYLENE BLUE ACTIVE SUBSTANCES (MBAS)
E430.2	NTA (COLORIMETRIC, AUTOMATED, ZINC-ZINCON)
E450.1	TOTAL ORGANIC HALIDES (TOX)
E501.1	TRICHALOMETHANES
E502.1	VOLATILE HALOGENATED ORGANIC COMPOUNDS
E502.2	VOL ORGANIC COMPDs IN WATER BY PURGE & TRAP CAP COL GC
E503.1	VOLATILE AROMATIC AND UNSATURATED ORGANIC COMPOUNDS
E504	1,2-DIBROMOETHANE AND 1,2-DIBROMO-3-CHLOROPROPANE
E505	ORGANOHALIDE PESTICIDES AND AROCLORS (MICROEXTRACTION)
E507	DETERMINATION OF NITROGEN-AND PHOSPHORUS-CONTAINING
E508	DETERMINATION OF CHLORINATED PESTICIDES IN GROUND WATER
E508A	POLYCHLORINATED BIPHENYLS (PCB'S)
E510.1	DETERMINATION OF THE MAXIMUM TOTAL TRICHALOMETHANE
E515	DETERMINATION OF CHLORINATED HERBICIDES IN DRINKING WATER
E515.1	DETERMINATION OF CHLORINATED ACIDS IN WATER BY GC/ECD
E524	MEASUREMENT OF PURGEABLE ORGANIC COMPOUNDS IN DRINKING
E524.1	VOLATILE ORGANIC COMPOUNDS IN WATER BY PURGE AND TRAP GC/MS
E524.2	VOLATILE ORGANIC COMPOUNDS BY PURGE & TRAP CAPILLARY
E525	ORGANICS IN WATER
E525.1	DETERMINATION OF ORGANIC COMPOUNDS IN DRINKING WATER BY
E531.1	DETERM. OF N-METHYLCARBAMOYLOXIMES & N-METHYLCARBAMATES
E547	DETERM. OF GLYPHOSATE IN DRINKING WATER BY DIRECT AQUEOUS
E548	DETERMINATION OF ENDOTHALL IN DRINKING WATER BY AQUEOUS
E548.1	DETERMINATION OF ENDOTHALL IN DRINKING WATER BY ION
E549	DETERMINATION OF DIQUAT AND PARAQUAT IN DRINKING WATER BY
E549.1	DETERMINATION OF DIQUAT & PARAQUAT IN DRINKING WATER LIQUID-
E601	PURGEABLE HALOCARBONS
E601-2	COMBINED METHODS E601/E602, SAME COLUMN AND DETECTOR
E602	PURGEABLE AROMATICS
E603	ACROLEIN AND ACRYLONITRILE
E604	PHENOLS
E605	BENZIDINES
E606	PHTHALATE ESTERS
E607	NITROSAMINES
E608	ORGANOCHLORINE PESTICIDES AND PCBS
E609	NITROAROMATICS AND ISOPHORONE
E610	POLYNUCLEAR AROMATIC HYDROCARBONS
E611	HALOETHERS
E612	CHLORINATED HYDROCARBONS
E613	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN
E614	DETERMINATION OF ORGANOPHOSPHORUS PESTICIDES IN WASTEWATER

lab_anl_meth	description
E615	CHLORINATED HERBICIDES IN INDUSTRIAL & MUNICIPAL WASTEWATER
E617	DETERMINATION OF CARBOPHENOTHION IN WASTEWATER
E619	DETERMINATION OF TRIAZINE PESTICIDES IN WASTEWATER
E624	VOLATILE ORGANICS GC/MS
E625	EXTRACTABLE PRIORITY POLLUTANTS (BASE/NEUTRAL AND ACID)
E632	DETERMINATION OF CARBAMATE AND UREA PESTICIDES IN
E80005	FASP METHOD F080.005 VOLATILE ORGANIC COMPOUNDS IN WATER BY
E81.1	AMMONIA NITROGEN DETERMINATION BY ION SELECTIVE ELECTRODE
E900	GROSS ALPHA AND BETA RADIATION
E901.1	GAMMA EMITTING RADIONUCLIDES IN DRINKING WATER
E903.0	ALPHA EMITTING RADIUM ISOTOPES IN DRINKING WATER
E903.1	RADIUM
E904.0	RADIUM 228 IN DRINKING WATER (BETA ACTIVITY)
E905.0	RADIOACTIVE STRONTIUM IN DRINKING WATER
E906.0	TRITIUM IN DRINKING WATER
E908	URANIUM IN DRINKING WATER. RADIOCHEMICAL METHOD
ENVR31	DDT IN SOIL BY EIA
ENVR40	CHLORDANE IN SOIL BY EIA
EOX	EPA DRAFT METHOD FOR THE DETERMINATION OF EXTRACTABLE
FCBGAS	FIELD SCREENING METHOD FOR THE DETERMINATION OF COMBUSTIBLE
FLDASV	FIELD SCREENING METHOD FOR HEAVY METALS IN WATER BY ANODE
FPUR	FIELD METHOD FOR PURGEABLE AROMATICS BASED ON METHOD E624
FSV	FIELD METHOD FOR SEMI-VOLATILE ORGANICS BASED ON EPA METHOD
FVMS	FIELD METHOD FOR THE DETERMINATION OF VOCS & FUELS BY GC/MS
FVOC	FIELD METHOD FOR VOLATILE HALOGENATED AND AROMATIC ORGANIC
G9017	GEOCHEMICAL & ENVIRONMENTAL RESEARCH GROUP (GERG)
G9202	GEOCHEMICAL & ENVIRONMENTAL RESEARCH GROUP (GERG) ANALYSIS
GTELF	GTEL LABORATORIES MODIFIED METHOD FOR THE DETERMINATION OF
LALHZ	LOCKHEED ANALYTICAL LAB METHOD FOR HYDRAZINES BY ION
LF03	USATHAMA METHOD FOR THE DETERMINATION OF NITROCELLULOSE IN
LF05	USATHAMA METHOD FOR THE AUTOMATED COLORIMETRIC
LL04	USATHAMA METHOD FOR THE DETERMINATION OF ORGANOSULFUR
LW18	USATHAMA METHOD FOR THE ANALYSIS OF THIODIGLYCOL AND
LW27	USATHAMA METHOD FOR THE DETERMINATION OF NITROGLYCERIN AND
LW28	USATHAMA METHOD FOR THE DETERMINATION OF TETRAZENE IN SOIL
LW30	USATHAMA METHOD FOR THE DETERMINATION OF NITROGUANIDINE IN
LWGLYS	LAW ENVIRONMENTAL METHOD FOR THE DETERMINATION OF GLYCOLS
M110.3	MODIFIED E110.3, FLOOD SCREENING METHOD FOR COLORIMETRIC
M18MS	MODIFIED E18 FOR THE DETERMINATION OF VOLATILE ORGANICS IN AIR
M2720	DISSOLVED GASES IN WATER BY HEADSPACE, HEADSPACE
M2720C	MODIFIED SM2720C METHOD FOR METHANE IN WATER BY HEADSPACE
M370.1	MODIFIED E370.1, OMITTING DIGESTION PROCEDURE
M418.1	HEAVY OILS IN SOIL AND WATER, MODIFIED 418.1, IR, FREON 113
M4500A	MODIFIED STANDARD METHOD 4500, ELECTROMETRIC AMMONIA
M4500P	MODIFIED STANDARD METHOD 4500, ASCORBIC ACID PHOSPHATE
M5500	GLYCOLS AND ALCOHOLS IN SOIL AND WATER BY DIRECT AQUEOUS

lab_anl_meth	description
M617	ANALYSIS OF AQUEOUS AND SOLID SAMPLES FOR MIREX, PHOTOMIREX,
M8015D	MODIFIED SW8015 FOR THE DETERMINATION OF DIESEL RANGE ORGANIC
M8015V	MODIFIED SW8015 FOR THE DETERMINATION OF GASOLINE RANGE
M8100	DETERMINATION OF DIESEL RANGE ORGANICS (LAB AND/OR STATE
M8330	MODIFIED SW8330 BY LC/MS
M9215C	MODIFIED STANDARD METHODS 9215C, ENUMERATION OF TOTAL
MITLAM	VOID RATIO (SOIL TESTING FOR ENGINEERS, W.T. LAMBERT, JOHN WILEY
MMBOC	ORGANIC CARBON IN SOIL BY MODIFIED MEBIUS DICHROMATE
MT13EC	MT13EC MODIFIED TO13 FOR THE DETERMINATION OF PCB'S IN AMBIENT
MT13MS	MT13MS MODIFIED TO13 FOR THE DETERMINATION OF SVOC'S AND
MT14FI	MT14FI MODIFIED TO14 FOR THE DETERMINATION OF METHANE IN
MT14FP	MT14FP MODIFIED TO14 FOR THE DETERMINATION OF REDUCED SULFUR
MT14MS	MT14MS MODIFIED TO14 FOR THE DETERMINATION OF VOC'S IN AMBIENT
MTO3S	SIMULTANEOUS DETERMINATION OF CARBON CHAIN SPECIATION, BTEX,
MTO3T	SIMULTANEOUS DETERMINATION OF CARBON CHAIN SPECIATION, BTEX,
N0500	TOTAL DUST
N0600	NUISANCE DUST, RESPIRABLE
N1000	ALLYL CHLORIDE
N1002	CHLOROPRENE
N1003	HALOGENATED HYDROCARBONS
N1004	SYM-DICHLOROETHYL ETHER
N1005	METHYLENE CHLORIDE
N1007	VINYL CHLORIDE
N1008	ETHYLENE DIBROMIDE
N1009	VINYL BROMIDE
N1010	EPICHLOROHYDRIN
N1011	ETHYL BROMIDE
N1012	DIBROMODIFLUOROMETHANE
N1013	1,2-DICHLOROPROPANE
N1014	METHYL IODIDE
N1300	KETONES I
N1301	KETONES II
N1400	ALCOHOLS I
N1401	ALCOHOLS II
N1402	ALCOHOLS III
N1403	ALCOHOLS IV
N1450	ESTERS I
N1500	HYDROCARBONS, BP 36-126 C
N1501	AROMATIC HYDROCARBONS IN AIR
N1550	NAPHTHAS
N1551	TURPENTINE
N1600	CARBON DISULFIDE
N1601	1,1-DICHLORO-1-NITROETHANE
N1602	DIOXANE
N1603	ACETIC ACID
N1604	ACRYLONITRILE

lab_anl_meth	description
N1606	ACETONITRILE
N1607	ETHYLENE OXIDE
N1608	GLYCIDOL
N1609	TETRAHYDROFURAN
N1610	ETHYL ETHER
N1611	METHYLAL
N1612	PROPYLENE OXIDE
N173	METALS BY ATOMIC ABSORPTION
N189	ANTIMONY
N2000	METHANOL
N2001	CRESOL, ALL ISOMERS
N2002	AMINES, AROMATIC
N2003	1,1,2,2-TETRABROMOETHANE (ACETYLENE TETRABROMIDE)
N2004	DIMETHYLACETAMIDE AND DIMETHYLFORMAMIDE
N2005	NITROBENZENES
N2007	AMINOETHANOL COMPOUNDS
N209	CHLORINE
N217	BENZENE SOLUBLES
N219	PHOSGENE
N221	ALIPHATIC AMINES
N236	4,4'-METHYLENE-BIS-(2-CHLOROANILINE)
N2500	2-BUTANONE
N2501	ACROLEIN
N2502	FORMALDEHYDE
N2503	MEVINPHOS
N2504	TETRAETHYL PYROPHOSPHATE
N2506	ACETONE CYANOHYDRIN
N2507	NITROGLYCERIN AND ETHYLENE GLYCOL DINITRATE
N2508	ISOPHORONE
N2510	1-OCTANETHIOL
N2513	ETHYLENE CHLOROXYDRIN
N2514	ANISIDINE
N2515	DIAZOMETHANE
N2516	DICHLOROFLUOROMETHANE
N2517	PENTACHLOROETHANE
N2518	HEXACHLORO-1,3-CYCLOPENTADIENE
N2519	ETHYL CHLORIDE
N2520	METHYL BROMIDE
N2521	METHYLCYCLOHEXANONE
N2523	1,3-CYCLOPENTADIENE
N2524	DIMETHYL SULFATE
N269	4-AMINOBIIPHENYL
N272	2-NITROPROPANE
N273	4-NITROBIIPHENYL
N276	ETHYLENE DIAMINE
N278	VINYL ACETATE

lab_anl_meth	description
N331	METHYL ETHYL KETONE PEROXIDE
N3500	FORMALDEHYDE
N3501	FORMALDEHYDE
N3502	PHENOL
N3503	HYDRAZINE
N3505	TETRAMETHYL THIOUREA
N3506	ACETIC ANHYDRIDE
N5000	CARBON BLACK
N5001	2,4-D AND 2,4,5-T
N5002	WARFARIN
N5003	PARAQUAT
N5004	HYDROQUINONE
N5005	THIRAM
N5006	CARBARYL
N5007	ROTENONE
N5008	PYRETHRUM
N5009	BENZOYL PEROXIDE
N5010	BROMOXYNIL AND BROMOXYNIL OCTANOATE
N5011	ETHYLENE THIOUREA
N5012	EPN, MALATHION, AND PARATHION
N5013	DYES, BENZIDINE-, O-TOLIDINE, O-DIANISIDINE
N5014	CHLORINATED TERPHENYL (60% CHLORINE)
N5016	STRYCHNINE
N5017	DIBUTYL PHOSPHATE
N5018	2,4,7-TRINITROFLUOREN-9-ONE
N5019	AZELAIC ACID
N5020	DIBUTYL PHTHALATE AND DI (2-ETHYLHEXYL) PHTHALATE
N5021	O-TERPHENYL
N5022	ARSENIC, ORGANO
N5023	COAL TAR PITCH VOLATILES
N5500	ETHYLENE GLYCOL
N5502	ALDRIN AND LINDANE
N5503	POLYCHLOROBIPHENYLS (PCB'S)
N5505	ISOCYANATE GROUP
N5506	POLYNUCLEAR AROMATIC HYDROCARBONS (HPCL)
N5508	KEPONE
N5509	BENZIDINE AND 3,3'-DICHLOROBENZIDINE
N5514	DEMETON
N5515	POLYNUCLEAR AROMATIC HYDROCARBONS (GC)
N6000	MERCURY
N6001	ARSINE
N6402	PHOSPHORUS TRICHLORIDE
N6600	NITROUS OXIDE
N6601	OXYGEN
N6700	NITROGEN DIOXIDE
N6701	AMMONIA

lab_anl_meth	description
N7013	ALUMINUM AND COMPOUNDS, AS AL
N7020	CALCIUM AND COMPOUNDS, AS CA
N7024	CHROMIUM AND COMPOUNDS, AS CR
N7027	COBALT AND COMPOUNDS, AS CO
N7029	COPPER (DUST AND FUME)
N7030	ZINC AND COMPOUNDS, AS ZN
N7048	CADMIUM AND COMPOUNDS, AS CD
N7074	TUNGSTEN (SOLUBLE AND INSOLUBLE)
N7082	LEAD
N7102	BERYLLIUM AND COMPOUNDS, AS BE
N7200	WELDING AND BRAZING FUME
N7300	ELEMENTS (ICP)
N7400	FIBERS, ASBESTOS IN AIR
N7401	ALKALINE DUSTS
N7402	ASBESTOS (TRANSMISSION ELECTRON MICROSCOPE)
N7500	SILICA, CRYSTALLINE, RESPIRABLE
N7501	SILICA, AMORPHOUS
N7502	ZINC OXIDE
N7505	LEAD SULFIDE
N7506	BORON CARBIDE
N7600	CHROMIUM, HEXAVALENT
N7601	SILICA, CRYSTALLINE
N7602	SILICA, CRYSTALLINE (IR)
N7900	ARSENIC AND COMPOUNDS, AS AS
N7901	ARSENIC TRIOXIDE, AS AS
N7902	FLUORIDES, AEROSOL AND GAS
N7903	ACIDS, INORGANIC
N7904	CYANIDES, AEROSOL AND GAS
NJGLYS	NJDEP METHOD FOR THE DETERMINATION OF GLYCOLS IN DRINKING
NONE	NONE PROVIDED
NYGLYS	NEW YORK STATE DEPARTMENT OF HEALTH, TENTATIVE METHOD FOR
OBGEDB	MODIFIED SW8010/E601 FOR THE DETERMINATION OF ETHYLENE
ORTPHD	DIESEL IN SOIL - ADAPTED METHOD FROM EPA SW846 METHODS 3540 AND
ORTPHG	GASOLINE IN SOIL - ADAPTED METHOD FROM EPA SW846 5030 &/OR 8020
OTTOFL	THE DETERMINATION OF TRACE LEVELS OF OTTO FUEL II IN SOIL AND
PID	HANDHELD PID FOR PRE-SCREENING VOLATILE ORGANICS IN THE FIELD
RA05	RADIOCHEMICAL DETERMINATION OF RADIUM-228 IN WATER SAMPLES
S100	HEXACHLORONAPHTHALENE
S102	FLUOROTRICHLOROMETHANE
S108	DICHLOROTETRAFLUOROETHANE
S111	DICHLORODIFLUOROMETHANE
S124	1,1,2,2-TETRACHLOROETHANE
S125	TRIFLUOROBROMOMETHANE
S126	1,2,3-TRICHLOROPROPANE
S128	TRICHLORONAPHTHALENE
S129	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE

lab_anl_meth	description
S130	TETRACHLORONAPHTHALENE
S131	1,1,1,2-TETRACHLORODIFLUOROETHANE
S132	1,1,2,2-TETRACHLORODIFLUOROETHANE
S134	1,1,2-TRICHLOROETHANE
S149	METHYL HYDRAZINE
S150	MORPHOLINE
S153	MONOMETHYLANILINE
S155	TETRAMETHYL SUCCINONITRILE
S158	2-AMINOPYRIDINE
S160	PHENYL HYDRAZINE
S161	PYRIDINE
S179	PHTHALIC ANHYDRIDE
S181	QUINONE
S187	TELLURIUM HEXAFLUORIDE
S188	RHODIUM (FUME AND DUST)
S189	RHODIUM (SOLUBLE)
S208	TRIBUTYL PHOSPHATE
S209	TRIORTHOCRESYL PHOSPHATE
S210	TRIPHENYL PHOSPHATE
S214	DINITROBENZENE
S215	DINITROTOLUENE
S219	NITROETHANE
S224	TETRANITROMETHANE
S225	TETRYL
S227	N-PROPYL NITRATE
S228	PICRIC ACID
S24	DIPHENYL
S244	SULFUR HEXAFLUORIDE
S249	CARBON DIOXIDE
S272	OIL MIST
S274	DDT ISOMERS
S278	CHLORDANE
S293	NICOTINE
S297	PENTACHLOROPHENOL
S308	SULFUR DIOXIDE
S335	TETRACHLOROETHYLENE
S336	TRICHLOROETHYLENE (TCE)
S340	CARBON MONOXIDE
S346	ALLYL GLYCIDYL ETHER
S350	N-BUTYL MERCAPTAN
S36	ETHYL FORMATE
S365	FURFURYL ALCOHOL
S368	ISOPROPYL ETHER
S374	METHYLCYCLOHEXANOL
S38	METHYL ACRYLATE
S383	TETRAETHYL LEAD

lab_anl_meth	description
S385	TITANIUM DIOXIDE
S39	METHYL CELLOSOLVE ACETATE
S4	HYDROGEN SULFIDE
S42	METHYL ACETATE
S49	ETHYL ACETATE
S50	ISOPROPYL ACETATE
S67	CHLORINATED CAMPHENE (TOXAPHENE)
S69	DIPROPYLENE GLYCOL METHYL ETHER
S72	PHENYL ETHER
S73	PHENYL ETHER-BIPHENYL MIXTURE
S74	PHENYL GLYCIDYL ETHER
S77	ISOPROPYL GLYCIDYL ETHER
S8	OZONE
S81	N-BUTYL GLYCIDYL ETHER
S87	PROPANE
S91	BUTADIENE
S93	LIQUID PETROLEUM GAS
S96	PENTACHLORONAPHTHALENE
S97	OCTACHLORONAPHTHALENE
S99	METHYL CHLORIDE
SGECD	FIELD METHOD FOR SOIL GAS USING CAPILLARY COLUMN WITH ECD.
SGMS	FIELD METHOD FOR SOIL GAS USING A PACKED COLUMN WITH ECD & MS.
SGPID	FIELD METHOD FOR SOIL GAS USING A CAPILLARY COLUMN WITH PID.
SGVOAF	FIELD METHOD FOR SOIL GAS BY MODIFIED SW8010/SW8015, DUAL
SGVOCF	FIELD METHOD FOR SOIL GAS VOC'S BY MODIFIED SW8010/SW8020 BY
SGVOCL	LABORATORY METHOD FOR SOIL GAS VOC'S BY MODIFIED
SGVOCS	FIELD SCREENING ANALYSIS OF VOC'S IN SOIL GAS BY MODIFIED SW8010
SGVOCT	FIELD METHOD FOR SOIL GAS ANALYSIS, DUAL CAPILLARY
SGVOPF	FIELD METHOD FOR VOC'S IN SOIL GAS USING A CAPILLARY COLUMN
SW1010	FLASH POINT (CLOSED CUP TESTER)
SW1020	SETAFLASH CLOSED-CUP METHOD FOR DETERMINING IGNITABILITY
SW1110	CORROSIVITY TOWARD STEEL
SW3810	HEADSPACE
SW3820	HEXADECANE EXTRACTION AND SCREENING OF PURGEABLE ORGANICS
SW4020	PROPOSED SW-846 METHOD FOR SCREENING PCB'S IN SOIL BY
SW6010	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY
SW6020	INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY
SW7.3	SW846 CH 7.3 CYANIDE/SULFIDE REACTIVITY
SW7020	ALUMINUM (AA, DIRECT ASPIRATION)
SW7040	ANTIMONY (AA, DIRECT ASPIRATION)
SW7041	ANTIMONY (AA, FURNACE TECHNIQUE)
SW7060	ARSENIC, (AA, FURNACE TECHNIQUE)
SW7061	ARSENIC (AA, GASEOUS HYDRIDE)
SW7062	ANTIMONY AND ARSENIC (ATOMIC ABSORPTION, GASEOUS
SW7080	BARIUM (AA, DIRECT ASPIRATION)
SW7081	BARIUM (AA, FURNACE TECHNIQUE)

lab anl meth	description
SW7090	BERYLLIUM (AA, DIRECT ASPIRATION)
SW7091	BERYLLIUM (AA, FURNACE TECHNIQUE)
SW7130	CADMIUM (AA, DIRECT ASPIRATION)
SW7131	CADMIUM (AA, FURNACE TECHNIQUE)
SW7140	CALCIUM (AA, DIRECT ASPIRATION)
SW7190	CHROMIUM (AA, DIRECT ASPIRATION)
SW7191	CHROMIUM (AA, FURNACE TECHNIQUE)
SW7195	CHROMIUM, HEXAVALENT (COPRECIPITATION)
SW7196	CHROMIUM, HEXAVALENT (COLORIMETRIC)
SW7197	CHROMIUM, HEXAVALENT (CHELATION/EXTRACTION)
SW7198	CHROMIUM, HEXAVALENT (DIFFERENTIAL PULSE POLAROGRAPHY)
SW7200	COBALT (AA, DIRECT ASPIRATION)
SW7201	COBALT (AA, FURNACE TECHNIQUE)
SW7210	COPPER (AA, DIRECT ASPIRATION)
SW7211	COPPER (FURNACE)
SW7380	IRON (AA, DIRECT ASPIRATION)
SW7420	LEAD (AA, DIRECT ASPIRATION)
SW7421	LEAD (AA, FURNACE TECHNIQUE)
SW7450	MAGNESIUM (AA, DIRECT ASPIRATION)
SW7460	MANGANESE (AA, DIRECT ASPIRATION)
SW7470	MERCURY IN LIQUID WASTE (MANUAL COLD-VAPOR TECHNIQUE)
SW7471	MERCURY IN SOLID OR SEMISOLID WASTE (MANUAL COLD-VAPOR TECH)
SW7480	MOLYBDENUM (AA, DIRECT ASPIRATION)
SW7481	MOLYBDENUM (AA, FURNACE TECHNIQUE)
SW7520	NICKEL (AA, DIRECT ASPIRATION)
SW7550	OSMIUM (AA, DIRECT ASPIRATION)
SW7610	POTASSIUM (AA, DIRECT ASPIRATION)
SW7740	SELENIUM (AA, FURNACE TECHNIQUE)
SW7741	SELENIUM (AA, GASEOUS HYDRIDE)
SW7742	SELENIUM (ATOMIC ABSORPTION, GASEOUS BOROHYDRIDE)
SW7760	SILVER (AA, DIRECT ASPIRATION)
SW7761	SILVER (AA, FURNACE TECHNIQUE)
SW7770	SODIUM (AA, DIRECT ASPIRATION)
SW7840	THALLIUM (AA, DIRECT ASPIRATION)
SW7841	THALLIUM (AA, FURNACE TECHNIQUE)
SW7870	TIN (AA, DIRECT ASPIRATION)
SW7910	VANADIUM (AA, DIRECT ASPIRATION)
SW7911	VANADIUM (AA, FURNACE TECHNIQUE)
SW7950	ZINC (AA, DIRECT ASPIRATION)
SW8010	HALOGENATED VOLATILE ORGANICS
SW8011	ETHYLENE DIBROMIDE AND DIBROMOCHLOROPROPANE BY
SW8015	NONHALOGENATED VOLATILE ORGANICS
SW8020	AROMATIC VOLATILE ORGANICS
SW8021	HALOGENATED AND AROMATIC VOLATILES BY GC USING ELECTROLYTIC
SW8030	ACROLEIN, ACRYLONITRILE, ACETONITRILE
SW8040	PHENOLS

lab anl meth	description
SW8060	PHTHALATE ESTERS
SW8080	ORGANOCHLORINE PESTICIDES AND PCBS
SW8081	ORGANOCHLORINE PESTICIDES AND PCBS AS AROCLORS BY GAS
SW8090	NITROAROMATICS AND CYCLIC KETONES
SW8100	POLYNUCLEAR AROMATIC HYDROCARBONS
SW8120	CHLORINATED HYDROCARBONS
SW8121	CHLORINATED HYDROCARBONS CAPILLARY GC/ECD
SW8140	ORGANOPHOSPHORUS PESTICIDES
SW8141	ORGANOPHOSPHORUS COMPOUNDS BY GAS CHROMATOGRAPHY:
SW8150	CHLORINATED HERBICIDES
SW8151	CHLORINATED HERBICIDES BY GC USING METHYLATION OR
SW8240	GC/MS FOR VOLATILE ORGANICS
SW8250	GC/MS FOR SEMIVOLATILE ORGANICS (PACKED COLUMN TECHNIQUE)
SW8260	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATGRAPH/MASS
SW8270	GC/MS FOR SEMIVOLATILE ORGANICS (CAPILLARY COLUMN TECHNIQUE)
SW8280	POLYCHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS
SW8290	POLYCHLORINATED DIBENZODIOXINS (PCDDS) & POLYCHLORINATED
SW8310	POLYNUCLEAR AROMATIC HYDROCARBONS
SW8321	SOLVENT EXTRACTABLE NON-VOLATILE COMPOUNDS BY HPLC/TSP/MS
SW8330	NITROAROMATICS AND NITRAMINES BY HIGH PERFORMANCE LIQUID
SW9010	TOTAL AND AMENABLE CYANIDE (COLORIMETRIC, MANUAL)
SW9012	TOTAL AND AMENDABLE CYANIDE (COLORIMETRIC, AUTOMATED UV)
SW9020	TOTAL ORGANIC HALIDES (TOX)
SW9022	TOTAL ORGANIC HALIDES (TOX) BY NEUTRON ACTIVATION ANALYSIS
SW9030	SULFIDES
SW9035	SULFATE (COLORIMETRIC, AUTOMATED, CHLORANILATE)
SW9036	SULFATE (COLORIMETRIC, AUTOMATED, METHYLTHYMOL BLUE, AA II)
SW9038	SULFATE (TURBIDIMETRIC)
SW9040	PH ELECTROMETRIC MEASUREMENT
SW9041	PH PAPER METHOD
SW9045	SOIL PH
SW9050	SPECIFIC CONDUCTANCE
SW9056	ANION CHROMATOGRAPHY
SW9060	TOTAL ORGANIC CARBON
SW9065	PHENOLICS (SPECTROPHOTOMETRIC, MANUAL 4-AAP WITH
SW9066	PHENOLICS (COLORIMETRIC, AUTOMATED 4-AAP WITH DISTILLATION)
SW9067	PHENOLICS (SPECTROPHOTOMETRIC, MBTH WITH DISTILLATION)
SW9070	TOTAL RECOVERABLE OIL & GREASE (GRAVIMETRIC, SEPARATORY
SW9071	OIL AND GREASE EXTRACTION FOR SLUDGE
SW9073	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
SW9080	CATION-EXCHANGE CAPACITY OF SOILS (AMMONIUM ACETATE)
SW9081	CATION-EXCHANGE CAPACITY OF SOILS (SODIUM ACETATE)
SW9090	COMPATIBILITY TEST FOR WASTES AND MEMBRANE LINERS
SW9095	PAINT FILTER LIQUIDS TEST
SW9100	SATURATED HYDRAULIC CONDUCTIVITY, SATURATED LEACHATE

lab_anl_meth	description
SW9131	TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
SW9132	TOTAL COLIFORM: MEMBRANE FILTER TECHNIQUE
SW9200	NITRATE
SW9250	CHLORIDE (COLORIMETRIC, AUTOMATED FERRICYANIDE AA I)
SW9251	CHLORIDE (COLORIMETRIC, AUTOMATED FERRICYANIDE AA II)
SW9252	CHLORIDE (TITRIMETRIC, MERCURIC NITRATE)
SW9310	GROSS ALPHA & GROSS BETA
SW9315	ALPHA-EMITTING RADIUM ISOTOPES
SW9320	RADIUM-228
SWNDMA	SOUTHWEST LABS METHOD FOR N-NITROSODIMETHYLAMINE BY GC/MS
SWVOL	COMBINED METHODS SW8010/SW8020, SAME COLUMN AND DETECTOR
TL427	THIOLAB LABORATORIES METHOD FOR THE ANALYSIS OF FURFURYL,
TO12	DETERMINATION OF NON-METHANE ORGANIC COMPS IN AMBIENT AIR
TO13FI	THE DETERMINATION OF PAH'S IN AMBIENT AIR BY GC/FID
TO13LC	THE DETERMINATION OF PAH'S IN AMBIENT AIR BY HPLC WITH A UV
TO13MS	THE DETERMINATION OF PAH'S IN AMBIENT AIR BY GC/MS
TO14	THE DETERMINATION OF VOLATILE ORGAINIC COMPOUNDS IN AMBIENT
TO3	DETERMINATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR
UF03	USATHAMA METHOD FOR THE DETERMINATION OF NITROCELLULOSE IN
UF05	THE DETERMINATION OF NITROCELLULOSE BY COLORIMETRIC
UNKNOWN	METHOD NOT KNOWN
USA4B	USATHAMA EXPLOSIVES METHOD (SOIL)
USAC2	USATHAMA EXPLOSIVES BY GC/ECD, IN WATER CONTRACTOR/USACE
USAD1	USATHAMA EXPLOSIVES METHOD (WATER)
USAD2	USATHAMA EXPLOSIVES BY GC/ECD, IN SOIL CONTRACTOR/USACE
USAL32	USATHAMA METHOD FOR THE DETERMINATION OF EXPLOSIVES BY
USALW2	USATHAMA EXPLOSIVES METHOD FOR SOIL
USAU35	USATHAMA METHOD FOR THE DETERMINATION OF EXPLOSIVES BY
USAUW4	USATHAMA EXPLOSIVES METHOD FOR WATER
USGS01	TNT, RDX, PICRIC ACID
UW22	USATHAMA METHOD FOR THE ANALYSIS OF THIODIGLYCOL AND
UW27	DETERMINATION OF PETN AND NITROGLYCERIN IN WATER BY HIGH
UW29	USATHAMA METHOD FOR THE DETERMINATION OF NITROGUANIDINE IN
UW30	USATHAMA METHOD FOR THE DETERMINATION OF TETRAZENE IN
WAHCID	STATE OF WASH. METHOD FOR THE QUALITATIVE IDENTIFICATION OF
WBLACK	WALKLEY-BLACK METHOD, ORGANIC CARBON (TOC)

7.12 Lab

lab_name_cod	lab_name
ABB	ABB ENVIRONMENTAL SERVICES INC., PORTLAND, MAINE
ABCW	ABC LABORATORIES, INC., SPOKANE, WA
ACIA	ADVANCE CHEMISTRY LABS, INC., ATLANTA, GA
ACU	ACUREX ANALYTICAL LAB
ACUX	ACUREX CORPORATION
ADTT	ADVANCED TERRA TESTING, LAKEWOOD, CO

lab_name_cod	lab_name
AEL	AMERICAN ENVIRONMENTAL LABORATORIES, SACRAMENTO, CA
AEMC	AMERICAN ENVIRONMENTAL MANAGEMENT CORP., RANCHO
AENC	AMERICAN ENVIRONMENTAL NETWORK, COLUMBIA, MA
AERO	AEROVIRONMENT INC.
AESA	ADIRONDACK ENVIRONMENTAL SERVICES, INC., ALBANY, NY
AGRE	AGUIRRE ENGINEERS, INC., ENGLEWOOD, CO
AIES	AQUATEC INC. ENVIRONMENTAL SERVICES, SOUTH BURLINGTON, VT
ALMO	A & L MIDWEST LABORATORIES, INC., OMAHA, NE
ALPH	ALPHA ANALYTICAL, OKLAHOMA CITY, OK
ALS	ANALYTICAL LABORATORY, SACRAMENTO, CA
ALTA	ALTA ANALYTICAL LAB INCORPORATED, EL DORADO HILLS, CA
AMTR	AM TEST LAB, REDMOND, WA
ANA	ANA-LAB CORP., KILGORE, TX
ANIH	ANACON, INC., HOUSTON, TX
ANLH	ANALYTIKEN, HOUSTON, TX
APPF	AGRICULTURE AND PRIORITY POLLUTANT LABORATORIES (APPL),
APPL	AGRICULTURE & PRIORITY POLLUTANTS
AQC	AQUATECH, COLDCHESTER, VT
AQLV	AQUATIC TESTING LAB, VENTURA, CA
AQTT	AQUATERRA TESTING, CA
AQUA	AQUALAB, INC., AUSTIN, TX
ARDL	APPLIED RESEARCH AND DEVELOPMENT (ARDL) LAB MT. VERNON, IL
ARIS	ANALYTICAL RESOURCES INC., SEATTLE, WA
ARJS	AEROJET LABORATORIES, SACRAMENTO, CA
ARLD	ALLIED ANALYTICAL AND RESEARCH LABORATORIES, INC., DALLAS,
ARM	ARMSTRONG LAB, BROOKS AFB, SAN ANTONIO, TX
ASIA	ANALYTICAL SERVICES INC., ATLANTA, GA
ATI	ANALYTICAL TECHNOLOGIES INC.
ATL	AIR TOXICS LTD, FOLSOM, CA
AWSL	AMERICAN WEST ANALYTICAL LABORATORIES, SALT LAKE CITY, UT
BARR	BARRINGER LABS, GOLDEN, CO
BC	BROWN & CALDWELL LAB, PASADENA, CA
BCA	BROWN & CALDWELL LAB, ANAHEIM, CA
BCE	BROWN & CALDWELL ANALYTICAL, EMERYVILLE LABORATORY,
BCG	BROWN & CALDWELL ANALYTICAL LABORATORY, GLENDALE, CA
BIOM	BIONOMIC LABORATORY, INC., MARIETTA, GA
BION	BIONETICS
BIOS	BIOSPHERICS
BREA	BROWN AND ROOT ENVIRONMENTAL, ALBUQUERQUE, NM
BREH	BROWN AND ROOT ENVIRONMENTAL, HOUSTON, TX
BREO	BROWN AND ROOT ENVIRONMENTAL, OAK RIDGE, TN
BRWP	BREWER ENVIRONMENTAL INDUSTRIES, INC., PAPAIOU, HI
BSKF	BSK & ASSOCIATES, FRESNO, CA
BTC	BTC ENVIRONMENTAL, BENTURA, CA
CAA	CAMBRIDGE ANALYTICAL ASSOCIATES, BOSTON, MA
CAEP	CENTER OF APPLIED ENGINEERING, INC., ST. PETERSBURG, FL

lab_name_cod	lab_name
CAFB	CASTLE AIR FORCE BASE
CAL	CALIFORNIA ANALYTICAL LAB
CAN	CANONIE
CARR	CARR LABORATORY, COLUMBIA, SOUTH CAROLINA
CASA	COLUMBIA ANALYTICAL SERVICES (CAS), ANCHORAGE, AK
CASC	CENTRE ANALYTICAL LABORATORIES, INC., STATE COLLEGE, PA
CASK	COLUMBIA ANALYTICAL SERVICES, INC., KELSO, WA
CASW	COAST TO COAST ANALYTICAL SERVICES, WESTBROOK, ME
CAWL	CALIFORNIA WATER LABS, INC.
CCAC	COAST TO COAST ANALYTICAL, CAMARILLO, CA
CCAS	COAST TO COAST ANALYTICAL SERVICES, GOLETA, CA
CCSJ	COAST TO COAST ANALYTICAL SERVICES, INC., SAN JOSE, CA
CEIM	CEIMIC, NARRAYANSETTE, RI
CEIP	CEIMIC CORPORATION, PITTSBURGH, PA
CENF	CENREF LABORATORIES
CEP	CONTROLS FOR ENVIRONMENTAL POLLUTION INC.
CHEN	CHEN-NORTHERN INC., SAN ANTONIO, TX
CHM	CH2M HILL
CHMC	CH2M HILL, CORVALLIS OR
CHMD	CH2M HILL, DENVER CO
CHMG	CH2M HILL, GAINESVILLE FL
CHMM	CH2M HILL, MONTGOMERY AL
CHMR	CH2M HILL, REDDING CA
CHMW	CHEMWEST LABS
CHTR	CHESTER LABORATORIES
CKY	CKY INC., TORRANCE, CA
CKYP	CKY INC., PLEASANTON, CA
CKYT	CKY INC., TUSTIN, CA
CLTP	CLAYTON ENVIRONMENTAL CONSULTANTS, INC., PLEASANTON, CA
CMPR	COMPUCHEM LABORATORIES, INC., RESEARCH TRIANGLE PARK, NC
CNGT	CHEM-NUCLEAR GEOTECH, GRAND JUNCTION, CO
CNS	CHEM-NUCLEAR SYSTEMS, INC.
COMP	COMPUCHEM LABORATORIES
CORE	CORE LABORATORIES, AURORA, COLORADA
CRIS	CHEMRON INCORPORATED, SAN ANTONIO, TX
CSAT	COPPER STATE ANALYTICAL LABS, INC., TUCSON, AZ
CSIS	CONTINENTAL ANALYTICAL SERVICES, INC., SALINA, KS
CSOA	CHEMSOLVE, AUSTIN, TX
CTB	CURTIS & TOMPKINS, BERKELEY, CA
CTEA	COMMERCIAL TESTING & ENGINEERING CO., ANCHORAGE, AK
CTLI	CURTIS & TOMPKINS, , LTD GENERAL ANALYTICAL LABORATORIES,
CTM	CTM ANALYTICAL, LATHAM, NY
DCHM	DATA CHEM, SALT LAKE CITY, UT
DEL	DELMAR ANALYTICAL
DHL	DHL ANALYTICAL, AUSTIN, TX
DMP	D & M LABORATORIES, PETALUMA, CA

lab_name_cod	lab_name
DYDH	NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER
EAL	EAL LAB
EAS	ENVIRONMENTAL ANALYTICAL SERVICES
EBAL	EBASCO ENVIRONMENTAL, LAKEWOOD, CO
ECEN	ECOLOGY AND ENVIRONMENT, INC.
ECJP	E.C. JORDAN CO., PORTLAND, ME
ECSE	ENVIRONMENTAL CHEMISTRY SERVICES, INC., ENGLEWOOD, CO
EDE	ENVIRODYNE ENGINEERS, INC.
EES	ENSECO EAST LAB, SOMERSET, NEW JERSEY
EGLS	ENVIRONMENTAL GEOTECHNICAL LABORATORY, SANTA FE SPRINGS,
EGSB	ENVIRONMENTAL GULF STATE LABORATORY, BOSSIER CITY, LA
EHSB	ENVIRONMENTAL HEALTH LABORATORIES, SOUTH BEND, IN
EHTC	ENVIRONMENTAL HEALTH RESEARCH AND TESTING, INC.,
EIRA	ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
EISR	ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC., ST. ROSE,
ELI	EUREKA LABORATORIES, INC., SACRAMENTO, CA
EMBC	ENVIRONMENTAL MANAGEMENT CORPORATION, EAST OF BLACK
ENIM	ENVIRONMENTAL TESTING AND CONSULTING INC., MEMPHIS, TN
ENMW	ENVIRONMENTAL MICRO ANALYSIS, INC., WOODLAND, CA
ENRR	ENERGY LABORATORY, INC., RAPID CITY, SD
ENSA	ENSECO, ROCKY MOUNTAIN ANALYTICAL LABORATORY (RMAL),
ENSC	ENSECO-CRL, GARDEN GROVE, CA
ENSE	ENSECO-AIR TOXICS LABORATORY, EL MONTE, CA
ENSI	ENSECO-AIR TOXIC LABORATORY, CITY OF INDUSTRY, CA
ENSP	ENSECO-WADSWORTH/ALERT LABORATORY, PITTSBURGH, PA
ENSR	ENSECO-ROCKY MOUNTAIN ANALYTICAL, DENVER LAB
ENSS	ENSECO-CALIFORNIA ANALYTICAL LAB. OF W. SACRAMENTO
ENST	ENSECO-WADSWORTH/ALERT LABORATORY, TAMPA BAY, FL
ENTK	ENTEK LABORATORY CORPORATION, LITTLE ROCK, AR
EPSI	ENVIRONMENTAL PROTECTION SYSTEMS INC., PENSACOLA, FL
EPSJ	ENVIRONMENTAL PROTECTION SYSTEMS, INC., JACKSON, MS
ERCO	ERCO/DIVISION OF ENSECO
ERG	ENVIRONMENTAL RESEARCH GROUP
ESB	ES BERKELEY LABORATORY
ESCB	ENGINEERING-SCIENCE LAB. OF BERKELEY, CALIFORNIA
ESCE	ENVIRONMENTAL SERVICES (ENSR) CONSULTING ENGINEER,
ESCI	ENGINEERING-SCIENCE
ESE	ESE INC.
ESED	ESE INC., DENVER LAB
ESEG	ESE INC., GAINSEVILLE LAB
ESES	ESE INC., ST. LOUIS LAB
ESIC	ENVIRO SYSTEM INC., COLUMBIA, MD
ESTB	EA ENGINEERING SCIENCE & TECHNOLOGY, BALTIMORE, MD
ESTM	EA ENGINEERING SCIENCE, AND TECHNOLOGY, INC., BOSTON, MA
ESTS	EA ENGINEERING SCIENCE AND TECHNOLOGY, INC., SPARKS, MD
ESVF	ENVIROSURV, INC., FAIRFAX, VA

lab_name_cod	lab_name
ETC	EARTH TECHNOLOGY ANALYTICAL LABORATORIES
ETCE	ETC, EDISON, NJ
ETCF	ETC - FINDLEY LABORATORY, FINDLEY, OH
ETCH	EARTH TECHNOLOGY ANALYTICAL LAB, HUNTINGTON BEACH, CA
ETCR	ETC NORTH WEST LAB, REDMOND, CA
ETCS	ETC, SANTA ROSA, CA
ETSN	ENVIRONMENTAL TESTING SERVICES, INC., NORFOLK, VA
EVCO	ENCO - ENVIRONMENTAL CONSERVATION LABORATORIES, ORLANDO,
FBQP	FIBERQUANT, INC., PHOENIX, AZ
FGL	FRUIT GROWERS LABORATORY, STOCKTON, CA
FLD	FIELD ANALYSIS
FMCH	FUGRO-MCCLELLAND, INC., HOUSTON, TX
FORH	FORENSIC ANALYTICAL, HAYWARD, CA
FSSG	FOUR SEASONS INDUSTRIAL SERVICES, INC., GREENSBORO, NC
GAL	GALSON LABORATORIES, E. SYRACUSE, NY
GELC	GENERAL ENGINEERING LABORATORIES, CHARLESTON, SC
GENC	GTEL ENVIRONMENTAL LABORATORIES, INC., CONCORD, CA
GENM	GTEL ENVIRONMENTAL LABORATORIES, INC., MILFORD, NH
GERC	GEOCHEMICAL ENVIRONMENTAL RESEARCH GROUP, COLLEGE
GGC	GLOBAL GEOCHEMISTRY OF CANOGA PARK, CALIFORNIA
GLB	GALBRAITH LABORATORIES INC., KNOXVILLE, TN
GLER	GLOBAL ENVIRONMENTAL INC., RAPID CITY, SD
GORE	W.L. GORE & ASSOCIATES, INC., ELKTON, MD
GRI	GEOCHEM RESEARCH, INC., HOUSTON, TX
GTSD	GEOTECHNICAL SERVICES, INC., DENVER, CO
HANH	HANNIBAL TESTING LABORATORIES INC., HANNIBAL, MO
HAZ	HAZEN RESEARCH, INC., GOLDEN, CO
HEA	HITTMAN EBASCO ASSOCIATES, INC.
HET	H, E, AND T INC.
HGCH	HYDROGEOCHEM, HUNTINGTON BEACH, CA
HGCP	HYDROGEOCHEM, PHOENIX, AZ
HIM	HAZLABS, INC., MARIETTA
HL	HARMON LABORATORIES
HLTH	CALIFORNIA STATE HEALTH LAB
HMST	HUGHES MISSILE SYSTEM COMPANY, TUCSON, AZ
HUFG	HUFFMAN LABORATORIES, INC., GOLDEN, CO
HWL	HOWARD LABORATORIES
HZIM	HAZELTON, INC., MADISON, WI
IEA	INDUSTRIAL & ENVIRONMENTAL ANALYSIS
IEAM	INDUSTRIAL & ENVIRONMENTAL ANALYSIS (IEA), MONROE, CT
IMEC	INBERG-MILLER ENGINEERS, CHEYENNE, WY
INAL	INALAB, INC., HONOLULU, HI
INCR	INCHCAPE TESTING SERVICES, RICHARDSON, TX
INSO	IN-SITU TECHNOLOGY, ORLANDO, FL
ISRN	INTERSCIENCE RESEARCH LAB NORFOLK, VA
ITC	INTERNATIONAL TECHNOLOGY CORPORATION, KNOXVILLE, TN

lab_name_cod	lab_name
ITCC	INTERNATIONAL TECHNOLOGY CORPORATION, CERRITOS, CA
ITCO	INTERNATIONAL TECHNOLOGY CORPORATION, CINCINNATI, OH
ITE	IT (INTERNATIONAL TECHNOLOGY) ANALYTICAL SERVICES, EDISON, NJ
ITP	IT (INTERNATIONAL TECHNOLOGY) ANALYTICAL SERVICES,
ITRO	IT/RADIOLOGICAL SERVICES LAB, OAKRIDGE, TN
ITSJ	IT (INTERNATIONAL TECHNOLOGY) ANALYTICAL SERVICES, SAN JOSE,
ITSL	INTERNATIONAL TECHNOLOGY ANALYTICAL SERVICES, ST. LOUIS, MO
JCAC	JAMES H. CARR & ASSOCIATES, COLUMBIA, SC
JEDB	JONES ENVIRONMENTAL DRILLING, INC., BOSSIER CITY, LA
JLAS	J.L. ANALYTICAL SERVICES, INC., CA
JNA	JONES AND NEUSE, INC., AUSTIN, TX
JRB	JRB ASSOCIATES
KIBA	KIBER ASSOCIATES, INC., ATLANTA, GA
KPIR	K-PRIME, INC., RICHMOND, CA
KSAF	KEN SCHMIDT AND ASSOCIATES, FRESNO, CA
KSTN	KEYSTONE LAB HOUSTON, TX
LAL	LOCKHEED ANALYTICAL LABORATORY, LAS VEGAS, NV
LAW	LAW ENVIRONMENTAL NATIONAL LABORATORIES, KENNESAW, GA
LENP	LAW ENVIRONMENTAL NATIONAL LABORATORIES, PENSACOLA, FL
LETO	LAW ENGINEERING, TULSA, OK
LGCM	LOCKHEED-GEORGIA COMPANY, MARIETTA, GA
LL	LANCASTER LABORATORIES
LTL	LAUCKS TESTING LAB, INC.
LTLS	LAUCKS TESTING LAB, SEATTLE, WA
MAFB	MCCLELLAN AFB LABORATORY
MBTS	MBT ENVIRONMENTAL LAB, SACRAMENTO, CA
MDNR	MICHIGAN DEPARTMENT OF NATURAL RESOURCES
METS	METATRACE, INC. ST. LOUIS, MO
MICROSEEPS	REPORTED BY CDM FOR TRW MINERA
MISL	MICROBE INOTECH LABORATORIES INC., ST. LOUIS, MO
MKSN	MCKESSON LABORATORIES
ML	MONTGOMERY LABORATORIES, PASADENA, CA
MRDO	MISSOURI RIVER DIVISION, CORPS. OF ENGINEERS DIVISION LAB.,
MRI	MIDWEST RESEARCH INSTITUTE (MRI), KANSAS, CITY, MO
MRTN	MARTIN MARIETTA, DENVER, CO
MSAB	MID-SOUTH ANALYTICAL, BOSSIER CITY, LA
MSB	MARYLAND SPECTRAL SERVICES, INC., BALTIMORE, MD
MSCM	MISSISSIPPI STATE CHEMICAL LAB, MISSISSIPPI STATE, MS
MSSL	MOUNTAIN STATES ANALYTICAL, SALT LAKE CITY, UT
MTST	METLAB TESTING SERVICES, INC., TULSA, OK
MWM	MONTGOMERY WATSON, MADISON, WI
MXSD	MAXWELL S3, SAN DIEGO, CA
NANC	NANCO LABS INC., WAPPINGER FALLS, NY
NCL	NORTH COAST LABORATORIES LTD.
NDRC	NDRC LABORATORIES, INC., RICHARDSON, TX
NEIP	NEI OF PENNSYLVANIA, INC., NORRISTOWN, PA

lab_name_cod	lab_name
NET	NATIONAL ENVIRONMENTAL TESTING, INC., SAN DIEGO, CA
NETC	NET CAMBRIDGE DIVISIONS
NETP	NET PACIFIC SAN DIEGO, CA
NETS	NET PACIFIC, INC., SANTA ROSA, CA
NPDL	NORTH PACIFIC DIVISION LABORATORIES (NPDL), TROUTDALE, OR
NTPW	NYTEST, PORT WASHINGTON, NY
NUS	NUS CORPORATION
NUSH	NUS CORPORATION, HOUSTON, TX
NUSP	HALLIBURTON NUS CORPORATION, PITTSBURGH, PA
OBGL	O'BRIEN & GERE LABORATORIES, INC., SYRACUSE, NY
OEHL	OEHL BROOKS AIR FORCE BASE
OILO	OILAB, OKLAHOMA CITY, OK
ONSI	ONSITE ENVIRONMENTAL LABORATORIES, INC., FREMONT, CA
ORNL	OAK RIDGE NATIONAL LABORATORY, OAK RIDGE, TN
ORTG	ORTEK ENVIRONMENTAL LABORATORIES, GREEN BAY, WI
OSEL	OKLAHOMA STATE ENVIRONMENTAL LABORATORY, OKLAHOMA CITY,
PACH	ENVIRONMENTAL LABORATORY OF THE PACIFIC, HONOLULU, HI
PAIP	PRECISION ANALYTICS INCORPORATION, PULLMAN, WA
PDPS	PDP ANALYTICAL SERVICES, SPRING, TX
PDPW	PDP ANALYTICAL SERVICES, THE WOODLANDS, TX
PEI	PEI ASSOCIATES
PESF	PACIFIC ENVIRONMENTAL LABORATORY, SAN FRANCISCO, CA
PIC	PACE , INC., CAMARILLO, CA
PIG	PACE, INC., GOLDEN, CO
PIH	PACE, INC., HAMPTON, NH
PIHB	PACE, INC., HUNTINGTON BEACH, CA
PIHT	PACE, INC., HOUSTON, TX
PIL	PACE, INC., LENEXA, KS
PIM	PACE, INC., MINNEAPOLIS, MN
PIN	PACE INC., NOVATO, CA
PINY	PACE, INC., NEW YORK, NY
PIP	PACE, INC., PITTSBURGH, PA
PIPC	PACE, INC., PETALUMA, CA
PITB	PACE, INC., TAMPA BAY, FL
PIWB	PACE, INC., WESTBROOK, ME
PIWF	PACE INC., WAPPINGERS FALLS, NY
PLES	PLAINS ENVIRONMENTAL SERVICES, SALINA, KS
PPB	PPB ENVIRONMENTAL LABORATORIES, INC., GAINESVILLE, FL
PSAL	PETRO SITE ASSESSMENT, LEES SUMMIT, MO
PSI	PROFESSIONAL SERVICE INDUSTRIES, INC., SAN ANTONIO, TX
PTL	PRINCETON TESTING LABORATORY
QALR	QUALITY ANALYTICAL LABORATORIES INC., REDDING, CA
QASD	QUALITY ASSURANCE LAB, SAN DIEGO, CA
QES	QUANTERRA ENVIRONMENTAL SERVICES, SANTA ANA, CA
QESA	QUANTERRA ENVIRONMENTAL SERVICES, ARVADA, CO
QESC	QUANTERRA ENVIRONMENTAL SERVICES, NORTH CANTON, OH

lab_name_cod	lab_name
QESF	QUANTERRA ENVIRONMENTAL SERVICES, TAMPA, FL
QESG	QUANTERRA ENVIRONMENTAL SERVICES, GARDEN GROVE, CA
QESI	QUANTERRA ENVIRONMENTAL SERVICES, CITY OF INDUSTRY, CA
QESK	QUANTERRA ENVIRONMENTAL SERVICES, KNOXVILLE, TN
QESL	QUANTERRA ENVIRONMENTAL SERVICES, ST. LOUIS, MO
QESP	QUANTERRA ENVIRONMENTAL SERVICES, PITTSBURGH, PA
QESR	QUANTERRA ENVIRONMENTAL SERVICES, RICHLAND, WA
QESS	QUANTERRA ENVIRONMENTAL SERVICES, WEST SACRAMENTO, CA
QEST	QUANTERRA ENVIRONMENTAL SERVICES, AUSTIN, TX
RABA	RABA-KISTNER CONSULTANTS, INCORPORATED, SAN ANTONIO, TX
RAI	RESOURCE ANALYSIS INC.
RAS	RADIAN ANALYTICAL SERVICES LAB - AUSTIN, TX
RASP	RADIAN ANALYTICAL SERVICES, PERIMETER PARK, NC
RASR	RADIAN ANALYTICAL SERVICES, RESEARCH TRIANGLE PARK, NC
RASS	RADIAN ANALYTICAL SERVICES - SACRAMENTO
RDL	RESEARCH & DEVELOPMENT LAB
RECA	RECRA ENVIRONMENTAL INCORPORATED, AMHERST, NY
REI	RESOURCE ENGINEERING, HOUSTON, TX
REWM	R.E. WRIGHT ASSOCIATES, INC., MIDDLETOWN, PA
RFW	ROY F. WESTON, INC.
RFWG	WESTON-GULF COAST LABORATORIES, UNIVERSITY PARK, IL
RFWL	ROY F. WESTON, LIONVILLE LAB
RFWS	ROY F. WESTON, STOCKTON LAB
RGLA	RADIAN GEOTECHNICAL LABORATORY, AUSTIN, TX
RNBW	RAINBOW ENVIROCHEM, INC., LENEA, KS
ROSS	ROSS ANALYTICAL SERVICES LABORATORY, STRONGSVILLE, OH
RRC	RIVERBEND RESEARCH CENTER
RTBR	RADIATION TECHNICAL SERVICES, BATON ROUGE, LA
RTI	RESEARCH TRIANGLE INSTITUTE, RESEARCH TRIANGLE PARK, NC
RTL	REMEDATION TECHNOLOGY LABORATORY, CONCORD, CA
SADL	U.S. CORP. OF ENGINEER SOUTH ATLANTIC DIVISION LABORATORY,
SAIB	SCIENCE APPLICATIONS INTERNATIONAL, BELLEVUE, WA
SAIC	SCIENCE APPLICATIONS INTERNATIONAL
SAN	SPECIALIZED ASSAYS, NASHVILLE, TN
SCOT	SCOTT LABORATORIES, INC., CA
SCSD	S-CUBED, SAN DIEGO, CA
SEAH	SOUTH EASTERN ANALYTICAL SERVICE, HUNTSVILLE, AL
SEQR	SEQUOIA ANALYTICAL, REDWOOD CITY, CA
SETM	SMITH ENVIRONMENTAL TECHNOLOGY, MOBILE, AL
SHOA	RADIAN SHOAL CREEK LABORATORY, AUSTIN, TX
SITE	SITE MONITORING INC., COLUMBUS, OH
SLES	SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES
SLM	SAVANNAH LABORATORIES, MOBILE, AL
SLS	SAVANNAH LABS, SAVANNAH, GA
SLT	SAVANNAH LABORATORIES, TALLAHASSEE, FL
SOLO	SOUTHERN ANALYTICAL LABORATORIES, INC., OLDSMAR, FL

lab_name_cod	lab_name
SPLH	SOUTHERN PETROLEUM LABORATORIES (SPL), HOUSTON, TX
SPSF	SUPERIOR PRECISION ANALYTICAL, SAN FRANCISCO, CA
SRI	SOUTHWEST RESEARCH INSTITUTE, SAN ANTONIO, TX
SSLL	SOUTHERN SOIL LABORATORIES, LA
SSM	SPOTTS, STEVENS AND MCCOY, INC.
STEO	STANDARD TESTING AND ENGINEERING COMPANY, OKLAHOMA CITY,
STLH	ENVIRONMENTAL SUPPORT TECHNOLOGIES, LAGUNA HILLS, CA
SWD	U.S. ARMY CORPS OF ENGINEERS SOUTHWESTERN DIVISION LAB (SWD),
SWLS	SOUTHWESTERN LABORATORIES, INC., SAN ANTONIO, TX
SWO	SOUTHWEST LABORATORY OF OKLAHOMA, INC., BROKEN ARROW, OK.
TALM	TALEM, INC., FORT WORTH, TX
TARC	TARGET ENVIRONMENTAL SERVICES, CO., COLUMBIA, MD
TARH	TARGET ENVIRONMENTAL SERVICES, CO., HUNTINGTON BEACH, CA
TBIW	TIGHE AND BOND, INC., WESTFIELD, MA
TCE	ENVIRONMENTAL TESTING AND CERTIFICATION
TCEF	ENVIRONMENTAL TESTING AND CERTIFICATION, FINDLAY, OH
TCL	TURNER CAS LABORATORY, INC., TUCSON, AZ
TELO	TECHRAD ENVIRONMENTAL LABORATORY, OKLAHOMA CITY, OK
TEMV	TRINITY ENVIRONMENTAL LABORATORIES, MOND VALLEY, KS
TGGA	TRANS GLOBAL ENVIRONMENTAL GEOCHEMISTRY, AUSTIN, TX
TGGT	TRANS GLOBAL ENVIRONMENTAL GEOCHEMISTRY, SAN ANTONIO, TX
THKB	THIOKOL ENVIRONMENTAL LABORATORY, BRIGHAM CITY, UT
TIM	TELEDYNE ISOTOPES MIDWEST LABORATORY
TLLC	TERRA LABORATORY LTD, LEAGUE CITY, TX
TLSA	TMA/TERRA TECH LAB., SANTA ANNA, CA
TMA	THERMO ANALYTICAL INC.
TMAE	THERMO ANALYTICAL (TMA)/EBERLINE ANALYTICAL SERVICES,
TMAS	THERMO ANALYTICAL (TMA), SANTA ANA, CA
TRAL	TRACE ANALYTICAL, INC., LUBBOCK, TX
TRC	TRACER RESEARCH CORPORATION, TUCSON, AZ
TRI	TRIANGLE LABORATORIES OF HOUSTON, INC., SUGARLAND, TX
TRIC	TRIANGLE LABORATORIES, COLUMBUS, OH
TRID	TRIANGLE LABS, DURHAM, NC
TSI	TECHNICAL SERVICES, INC.
TWC	TEXAS WATER COMMISSION
TWNG	TWINING LABORATORIES, INC.
TWPB	TOXICON - WEST PALM, WEST PALM BEACH, FL
UBTL	UTAH BIOMEDICAL TESTING LAB
UECH	UNITEK ENVIRONMENTAL CONSULTANTS, INC., HONOLULU, HI
UNCG	UNC GEOTECH, GRAND JUNCTION, CO
UODN	UNIVERSITY OF DELAWARE, NEWARK, DE
USAE	U.S. ARMY ENVIRONMENTAL HYGIENE AGENCY (USAE HA), MD
USAF	U.S. AIR FORCE
USCE	U.S. ARMY CORPS OF ENGINEERS, OMAHA, NE
USDA	U.S. DEPARTMENT OF AGRICULTURE
USGS	U.S. GEOLOGICAL SURVEY

lab_name_cod	lab_name
USSP	U.S. ARMY CORPS OF ENGINEERS SOUTH PACIFIC LABORATORY,
UTSL	UTILITIES TESTING LABORATORY, SALT LAKE CITY, UT
VERC	VERSAR CORPORATION, COLUMBIA, MD
VERS	VERSAR CORPORATION, SPRINGFIELD VA LABS
VLIV	VERONA LABORATORY, INC., VERONA, NY
WAFB	WURTSMITH AIR FORCE BASE
WAR	WATER AND AIR RESEARCH, INC.
WETL	WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY, LIONVILLE,
WIBR	WILLIAMS BROTHERS, TULSA, OK
WILS	WILSON AND COMPANY, SALINA, KS
WLNS	WILSON LABORATORIES, SALINA, KS
WPL	WEST-PAINE LABORATORIES, BATON ROUGE, LA
WSTD	WESTERN ENVIRONMENTAL SCIENCE & TECHNOLOGY, DAVIS, CA
WTCF	WEYERHAEUSER TECHNOLOGY CENTER, FEDERAL WAY, WA
WTIA	WESTERN TECHNOLOGIES INC., ALBUQUERQUE, NM
ZLB	ZALCO LABORATORIES, BAKERSFIELD, CA

7.13 Matrix

matrix_code	matrix_desc
AA	Ambient Air
AD	Drilling Air
AE	Air, Vapor Extraction Well Effluent
AQ	Air Quality Control Matrix
CA	Cinder-Ash
CF	Fly Ash Cinder
DC	Drill Cuttings
GE	Gaseous Effluent (Stack Gas)
GL	Headspace of Liquid Sample
GS	Soil Gas
LA	Aqueous Phase of a Multiple Phase Liquid or Solid Sample
LC	Liquid Condensate
LD	Drilling Fluid
LE	Liquid Emulsion
LF	Floating/Free Product on Groundwater Table
LH	Free-Flowing, or Liquid Waste Containing Less Than 0.5% Dry
LM	Multiple Phase Liquid Waste Sample
LO	Organic Liquid
LV	Liquid from Vadose Zone
MH	Hazardous Multiple Phase Waste
Oil	Oil_1
SB	Bentonite
SC	Cement
SD	Drill Cuttings, Solid Matrix
SE	Sediment (Associated with Surface Water)
SF	Filter Sandpack

matrix_code	matrix_desc
SH	Solid Waste Containing greater than or equal to 0.5% Dry Solids
SL	Sludge
SM	Water Filter (Solid Material used to filter Water)
SN	Miscellaneous Solid Materials - Building Materials
SO	Soil
SP	Casing (PVC, Stainless Steel, Cast Iron, Iron Piping, etc.)
SQ	Soil/Solid Quality Control Matrix
SR	Water Filter Residue (Solid that gets filtered out of Water)
SS	Scrapings
ST	Solid Waste
SW	Swab or Wipe
TA	Animal Tissue
TP	Plant Tissue
TQ	Tissue Quality Control Matrix
U	Unknown
W	Water
WA	Drill Cuttings, Aqueous Matrix
WC	Drilling Water (Used for Well Construction)
WD	Well Development Water
WE	Estuary
WG	Ground Water
WH	Equipment Wash Water, i.e., Water used for Washing
WL	Leachate
WO	Ocean Water
WP	Drinking Water
WQ	Water Quality Control Matrix
WS	Surface Water
WV	Water From Vadose Zone
WW	Waste Water
WZ	Special Water Quality Control Matrix

7.14 Std_Prep_method

prep_method	preferred_name
A412	CYANIDE
A412B	TOTAL CYANIDE AFTER DISTILLATION
A417A	NITROGEN (AMMONIA) PRELIMINARY DISTILLATION
A503D	SLUDGE SAMPLES (SOIL, SEDIMENT, SLUDGE)
A5520G	SM5520F-PETROLEUM HYDROCARBON FRACTION OF SM5520 OIL AND GREASE
A5520H	SM5520F-PETROLEUM HYDROCARBON FRACTION OF SM5520 OIL AND GREASE,
AS3332	ASA 33-3.2 EXTRACTION OF EXCHANGEABLE AMMONIUM, NITRATE AND NITRITE
AV3050	ACID VOLATILE METALS EXTRACT OF SOIL, SEDIMENT, OR SLUDGE SAMPLES
AVS	MODIFIED METHOD FOR THE SIMULTANEOUS EXTRACTION OF METALS AND
CALC	CALCULATED ANALYTICAL PARAMETER
DI	DIRECT INJECTION
DISWAT	LEACHING OF ANALYTE FROM SOIL SAMPLES USING DISTILLED WATER

prep_method	preferred_name
EH01	RADIOCHEMICAL DETERMINATION OF TRITIUM IN SOIL, VEGETATION AND
FDA01	FOOD & DRUG ADMIN PREP METHOD FOR TISSUE PRIOR TO ORGAN. ANA
FDAPH	EXTRACTION AND CLEANUP OF ORGANOCHLORINE, ORGANOPHOSPHATE,
FLDFLT	FIELD FILTERING FOR DISSOLVED METALS
FLTRES	RESIDUE AFTER FILTERING (0.45 MICRON)
G9016	GEOCHEMICAL & ENVIRONMENTAL METHOD RESEARCH GROUP (GERG)
GST07	GEOCHEMICAL & ENVIRONMENTAL METHOD RESEARCH GROUP (GERG)
ITAS07	PREPARATION OF SAMPLES FOR THE SEQUENTIAL DETERMINATION OF ISOTOPIC
ITAS30	PREPARATION OF SAMPLES FOR GAMMA SPECTROSCOPY, ITAS 13030, HASL 300
LUFT	EXTRACTION METHOD SPECIFIED IN THE LUFT MANUAL FOR MODIFIED
M3510	MODIFIED SW3510
M3540	MODIFIED SW3540
M3550	MODIFIED SW3550
M3810	HEADSPACE
METHOD	EXTRACTION METHOD SPECIFIED IN ANALYTICAL METHOD
NONE	NO EXTRACTION REQUIRED FOR THIS METHOD
RC5007	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENTS OF WINE. QESR
SAMOSA	METHOD OF SOIL ANALYSIS (MOSA)
SW1310	EXTRACTION PROCEDURE (EP) TOXICITY TEST METHOD AND STRUCTURAL
SW1311	TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) REVISION
SW1320	MULTIPLE EXTRACTION PROCEDURE
SW1330	EXTRACTION PROCEDURE FOR OILY WASTES
SW3010	DIGESTION FOR TOTAL METALS FOR FLAME AA AND ICP
SW3015	MICROWAVE ASSISTED ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS
SW3020	DIGESTION FOR TOTAL METALS FOR FURNACE AA
SW3040	DISSOLUTION PROCEDURE FOR OILS, GREASES, OR WAXES
SW3050	ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS
SW3051	MICROWAVE ASSISTED ACID DIGESTION OF SOILS, SEDIMENTS, SLUDGES AND
SW3060	ALKALINE DIGESTION OF SOIL AND SOLID WASTE FOR HEXAVALENT CHROMIUM
SW3510	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
SW3520	CONTINUOUS LIQUID-LIQUID EXTRACTION
SW3540	SOXHLET EXTRACTION
SW3550	SONICATION EXTRACTION
SW3580	WASTE DILUTION
SW3610	ALUMINA COLUMN CLEANUP
SW3611	ALUMINA COLUMN CLEANUP AND SEPARATION OF PETROLEUM WASTES
SW3620	FLORISIL COLUMN CLEANUP
SW3630	SILICA GEL CLEANUP
SW3640	GEL-PERMEATION CLEANUP
SW3650	ACID-BASE PARTITION CLEANUP
SW3660	SULFUR CLEANUP
SW3810	HEADSPACE
SW5020	HEADSPACE METHOD
SW5030	PURGE-AND-TRAP
SW5040	PROTOCOL FOR ANALYSIS OF SORBENT CARTRIDGES FROM VOL ORGANIC
SW7.33	REACTIVITY CN

prep_method	preferred_name
SW7.34	REACTIVITY SULFIDE
SW824D	SW8240(B) DIRECT INJECTION TECHNIQUE
SW9071	OIL & GREASE EXTRACTION METHOD FOR SLUDGE SAMPLES
T3550	MODIFIED SW3550/GPC METHOD FOR THE EXTRACTION OF PCB'S AND PESTICIDES
TOTAL	HNO3 DIGESTION OF UNFILTERED WATER AND SOIL SAMPLES FOR TOTAL
TOTREC	TOTAL RECOVERABLE DIGESTION OF UNFILTERED SAMPLE FOR METALS
WET	WASTE EXTRACTION TEST (WET)
WOS	WATER EXTRACTION OF SOILS FOR THE DETERMINATION OF ANIONS AND

7.15 Qualifier

The EDMAN program will use EPA standard qualifiers. Definitions for these qualifiers are provided below.

Lab_qua	Description
A	Indicates tentatively identified compounds that are suspected to be aldol condensation products.
B	ORGANICS - Indicates the analyte is detected in the associated blank as well as in the sample. INORGANICS – reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected a “U” shall be entered. In addition, this qualifier will be changed to a “U” for validated data.
C	Indicates pesticide results have been confirmed by GC/MS.
D	Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.
E	Indicates compounds whose concentrations exceed the calibration range of the instrument.
G	Indicates the TCLP matrix spike recovery was greater than the upper limit of the analytical method.
H	Sample result is estimated and biased high.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a report result having an associated QC problem.
L	Sample result is estimated and biased low.
N	Indicates presumptive evidence of a compound. This flag is usually used for a tentatively identified compound, where the identification is based on a mass spectral library search.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
P	Indicates a pesticide/Aroclor target analyte had a percent difference greater than 25% between the two GC columns. The lower of the two results is reported.
R	Indicates the data are unusable. (Note: The analyte may or may not be present.)
U	Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

7.16 Result_type

result_type_code	result_type_desc
IS	Internal Standards.
SC	Spiked Compounds.
SUR	Surrogates.
TIC	Tentatively Identified
TRG	Target, regular result.

7.17 Sample_type

sample_type_code	sample_type_desc
AB	Ambient Conditions Blank
BD	Blank Spike Duplicate
BS	Blank Spike
EB	Equipment Blank
FB	Field Blank
FD	Field Duplicate Sample
FR	Field Replicate
FS	Field Spike
KD	Known (External Reference Material) Duplicate
LB	Lab Blank
LR	Lab Replicate
MB	Material Blank
MS	Lab Matrix Spike
MSD	Lab Matrix Spike and Spike Duplicate pair considered as one
N	Normal Environmental Sample
RB	Material Rinse Blank
RD	Regulatory Duplicate
RM	Known (External Reference Material) Rinsate
SD	Lab Matrix Spike Duplicate considered as separate from spike
TB	Trip Blank

7.18 Unit

unit_code	unit_desc
% v/v	percent by volume
1/s	per second
acre ft	acre feet
acres	acres
admi color	admi (american dye manufacturers institute) color
bars	bars
cfs	cubic feet per second
cfu/100ml	colony forming units per 100 milliliters
cfu/g	colony forming units per gram

unit_code	unit_desc
cfu/ml	colony forming units per milliliters
cm	centimeters
cm/hr	centimeters per hour
cm/sec	centimeters per second
cm/yr	centimeters per year
cm2/sec	square centimeters per second
colf/100ml	coliform bacteria per 100 milliliters
colf/g	coliform bacteria per gram
color unit	color unit
day	days
deg c	degrees celsius
deg c/hr	degrees celsius per hour
deg f	degrees fahrenheit
deg k	degrees Kelvin
digits	number of digits to the right of the decimal point
dollars	dollars
dpy	drums per year
dynes/cm	dynes per centimeter
each	each
fibers/l	fibers per liter
ft	feet
ft candles	foot candles
ft msl	feet above mean sea level
ft/day	feet per day
ft/in	feet per inch
ft/min	feet per minute
ft/sec	feet per second
ft2	square feet
ft2/day	square feet per day (cubic feet/day-foot)
ft2/min	feet squared per minute (for units of
ft3	cubic feet
ft3/yr	cubic feet per year
g/cc	grams per cubic centimeter
g/g	grams per gram
g/kg	grams per kilogram
g/l	grams per liter
g/m2/yr	grams per square meter per year
g/ml	grams per milliliter
Gal	gallons
gpd	gallons per day
gpd/ft	gallons per day per foot
gpd/ft2	gallons per day per foot squared
gphr	gallons per hour
gpm	gallons per minute
gpm/ft	gallons per minute per foot
gpsec	gallons per second

unit_code	unit_desc
gpy	gallons per year
Hrs	hours
hrs/day	hours per day
In	inches
in(hg)	inches of mercury
in/day	inches per day
in/ft	inches per foot
in/hr	inches per hour
in/in	inches per inch
in/wk	inches per week
in2/ft	square inches per foot
jcu	jackson candle units
jtu	jackson turbidity units
kg/1000gal	kilograms per 1000 gallons
kg/batch	kilograms per batch
kg/day	kilograms per day
kg/m3	kilogram per meter cubed
kg/m3/s	kilogram per meter cubed per second
kg/s	kilogram per second
km2	square kilometers
knots	knots
L	liter
L/day	liters per day
L/hr	liters per hour
L/min	liters per minute
L/sec	liters per second
Lb/1000lb	pounds per thousand pounds
lb/barrel	pound per barrel
lb/in2	pounds per square inch
lb/ton	pounds per ton
lbs	pounds
lbs/day	pounds per day
lbs/mon	pounds per month
lbs/yr	pounds per year
m	meter
m/day	meters per day
m/s	meter per second
m2	meter squared
m2/s	meter squared per second
m3 x 10(6)	meter cubed (in millions)
m3/kg	meter cubed per kilogram
m3/s	meter cubed per second
meq/100g	milliequivalents per 100 grams
mg/100cm2	milligrams per 100 square centimeters
mg/flt	milligrams per filter
mg/g	milligrams per gram

unit_code	unit_desc
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
mg/m2	milligrams per square meter
mg/m2/day	milligrams per meter squared per day
mg/m3	milligrams per cubic meter (ppbv)
mg/ml	milligrams per milliliter
mgal	million gallons
mgd	millions of gallons per day
mgdo/l	milligrams dissolved oxygen per liter
mgm	millions of gallons per month
mgY	millions of gallons per year
mile2	square miles
miles	miles
mill ft3	million feet cubed
millivolts	millivolts
min	minutes
ml	milliliter
ml/l	milliliter per liter
mm	millimeter
mm/m2/hr	millimeter per meter squared per hour
mm/yr	millimeter per year
mmhos/cm	milliohms (mmhos) per centimeter
mol %	mole percent
mon	month
mph	miles per hour
mpn/100ml	most probable number per 100 ml
ms/cm	microsiemens per centimeter
naut.mile	nautical mile
ng/100cm2	nanograms per 100 square centimeters
ng/g	nanograms per gram
ng/kg	nanogram per kilogram
ng/l	nanogram per liter
ng/m3	nanogram per cubic meter
ng/ml	nanograms per milliliter
none	no unit of measure
ntu	nephelometric turbidity units
pcf	pounds per cubic foot
pci/g	picocuries per gram
pci/l	picocuries per liter
pci/mg	picocuries per milligram
pci/ml	picocuries per milliliters
per loss	percent loss
percent	percent
pg/g	picogram per gram
pg/kg	picograms per kilogram
pg/l	picogram per liter

unit_code	unit_desc
pg/m3	picograms per cubic meter
pg/ul	picograms per microliter
pH units	pH units
ppb	parts per billion
ppbv	parts per billion by volume
ppm	parts per million
ppmv	parts per million by volume
pptv	parts per trillion by volume
psf	pounds per square foot
psi	pounds per square inch
s	second
t.o.n.	threshold order number
tons/acre	tons per acre
tons/day	tons per day
turbidity	nephelometric turbidity units
ug/100cm2	micrograms per 100 square centimeters
ug/cm2	microgram per square centimeters
ug/g	micrograms per gram
ug/kg	micrograms per kilogram
ug/l	micrograms/liter
ug/m3	micrograms per cubic meter
ug/yr	micrograms per year
um/sec	micrometer per second
umhos/cm	umhos per centimeter
upy	units per year
yd	yard

7.19 Geology Soil Materials

AASHTO	
A-1-a	A-3
A-1-b	A-4
A-2-4	A-5
A-2-5	A-6
A-2-6	A-7-5
A-2-7	A-7-6
USCS	
GW	SC-SM
GP	SW-SM
GM	SW-SC
GC	SP-SM
GC-GM	SP-SC
GW-GM	CL
GW-GC	ML

GP-GM	OL
GP-GC	CH
SW	MH
SP	OH
SM	CL-ML
SC	Pt
USDA	
CLAY	LOAM
SANDY CLAY	SANDY LOAM
SILTY CLAY	SILTY LOAM
SANDY CLAY LOAM	SILT
SILTY CLAY LOAM	LOAMY SAND
CLAY LOAM	SAND
OTHER	
ALBITIZED	SERPENTINIZED
ALLUVIUM	SHALE
ANDESITE	SILIFIED
ANHYDRITE	SILT
ARCHIMEDES	SILTSTONE
ARGILLACEOUS	SHATTERED
ARGILLIZED	SHEARED
ARGILLIC	SKARNED
ARGILLITE	SKARN
ASPHALT	STROMATOLITES
BASEMENT	TALC
BEDROCK	TILL
BENTONITE	TOPSOIL
BLANK	TREMOLITE
BONY	TUFF
BRECCIA	VITROPHYRE
CALCIFIED	ANHYDRITIC DOLOSTONE
CALCITE	ARENACEOUS DOLOSTONE
cap	ARENACEOUS LIMESTONE
CARBONATE	ARENACEOUS SHALE
CEMENT	ARGILLACEOUS DOLOSTONE
CHALCOPYRITE	ARGILLACEOUS LIMESTONE
CHLORITIZED	ARGILLACEOUS SANDSTONE
CHERT	BIOTITE HORNFELS
CLAY	BRYOZOAN LIMESTONE
CLAYSTONE	CALCAREOUS MUDSTONE
COAL	CALCAREOUS DOLOMITE
COLLUVIUM	CALCAREOUS DOLOSTONE
CONGLOMERATE	CALCAREOUS SANDSTONE
DEVITRIFIED	CALCAREOUS SILTSTONE
DIABASE	CALCITE VEINING

DOLOMITE	CHERTY LIMESTONE
DOLOSTONE	DOLOMITIC LIMESTONE
ENDOSKARN	DOLOMITIC MUDSTONE
FAULT	FINE SAND
GALENA	FOLDED SCHIST
GNEISS	GARNET SKARN
GRANITE	LIMESTONE MUDSTONE
GRANODIORITE	LIMESTONE WITH SHALE INTERBEDS
	LIMESTONE WITH SHALE STRINGERS
GRAVEL	LOST CIRCULATION
GYPSUM	MAFIC INTRUSIVE
JASPEROID	No Circulation
KAOLINIZED	OOLITIC LIMESTONE
LATITE	PYROXENE HORNFELS
LIMESTONE	QUARTZ VEIN
MARBLE	QUARTZ VEINING
METADOLOMITE	QUARTZ LATITE
OIL SHALE	SAND PEBBLES
OXIDIZED	SANDY LIMESTONE
PEBBLES	SANDY SILT
PHYLLIC	SHALE AND LIMESTONE INTERBEDS
PYRITE	SHALE WITH LIMESTONE INTERBEDS
PYRITIC	SHALY LIMESTONE
PYROXENE	SILTACEOUS SHALE
QUARTZITE	SILTY LIMESTONE
QUARTZ	SNOWFLAKE OBSIDIAN
RHYODACITE	TAR SAND
RHYOLITE	TILTED LIMESTONE
SALT	TREMOLITE HORNFELS
SAND	TREMOLITE MARBLE
SANDSTONE	UPPER BACKFILL
SCHIST	UPPER SEAL
screen	VERY COARSE SANDSTONE
SERICITIZED	SILTY SAND
SERPENTINE	SANDY GRAVEL
	GRAVELLY SAND
	UNKNOWN
	NULL

7.20 Well Segment and Materials

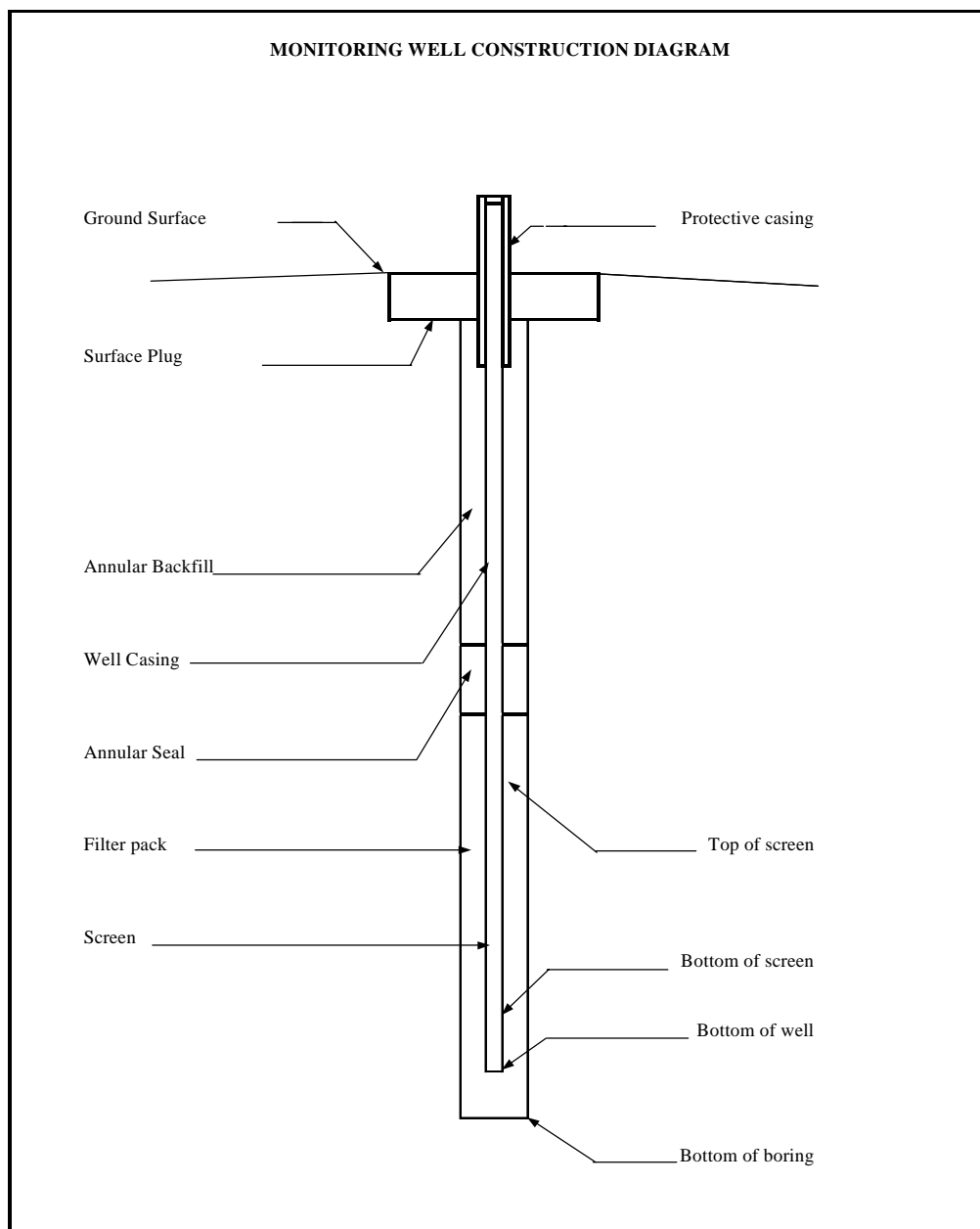
This table consists of the types of well segments available for entry into segment_type field and the associated material type of the segment. Entry of data into segment_type and material_type_code fields are restricted to the vocabulary listed in this table. Figure 7-1 presents a monitoring well diagram detailing the various well segments.

Notes: Bentonite is abbreviated as bent for certain material_type_codes in order to adhere to the field restriction of 20 characters.

Segment_types consisting of materials with trade names of Teflon, Halon, Fluon, Hostaflon, Polyflon, Neoflon, Kynar, Kel-F, and Diaflon should use *fluoropolymer* as material_type_code.

segment_type	material_type_code
protective casing	steel unknown
surface plug	bentonite neat cement concrete unknown
annular backfill	bent-sand slurry bentonite slurry bent-cement grout neat cement grout cement-gypsum grout cement-aluminum cement-fly ash concrete grout natural formation unknown
annular seal	bentonite-granular bentonite-pellets bentonite-slurry unknown
casing	PVC sch 40 PVC sch 80 ABS fluoropolymer stainless steel 304 stainless steel 316 carbon steel low-carbon steel galvanized steel unknown
screen	PVC sch 40 PVC sch 80 fluoropolymer stainless steel 304 stainless steel 316

	unknown
filter pack	sand pack gravel pack natural formation unknown

Figure 7.1 Monitoring Well Diagram

7.21 Example of Geologic Units

The following example shows the lithology and 5 possible geologic units associated with a soil boring. Data providers are requested to provide only 2 geologic units, however 5 units are shown to illustrate a number of possible geologic units.

